A VALUE FOCUSED APPROACH TO DETERMINING
THE TOP TEN HAZARDS IN ARMY AVIATION

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Abstract

The United States Army Safety Center is challenged with identifying the top ten most severe hazards in Army Aviation. This research utilizes value-focused thinking and multiattribute preference theory concepts to produce a decision analysis model designed to aid decision-makers in their analysis process. The severity model is based on the Army's Risk Management doctrinal manual and has been tailored specifically for aviation related accidents and hazards. The model determines the severity and risk ranking for 65 categories of accidents and 24 existing hazards. A sensitivity analysis is conducted to examine the effects of variations in the weights of the top-level criteria for accident and hazard severity. Recommendations are presented for ways to use the information contained in this report to assist in developing risk reduction controls focused on force protection. The model provides the decision-makers with a decision analysis methodology that is consistent with Army doctrine and the values of the current chain of command at the Army Safety Center. Furthermore the model can be adjusted for different leadership levels or situations.

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1   Introduction

1.1   General Issue

Everyday as we respond to the nation's needs, we expose our soldiers to hazards in uncertain and complex environments. We do this with the full knowledge that there are inherent risks associated with any military operation. The nature of our profession will not allow for either complacency or a cavalier acceptance of risk.

General Dennis J. Reimer
Chief of Staff, Army

Over the years Army aviation has evolved tremendously from artillery observation to an integrated part of nearly every military operation of the combined arms team. In the last 10 years, largely due to increased capabilities and new technology, the mission of Army aviation has become more complex. Today's operational demands require Army aviation to not only perform with their inherent risks, but to do this in a variety of environments which increases that risk. To maintain their outstanding safety record, save soldiers lives and protect our force requires constant vigilance and the application of sound safety management techniques. One of those safety management techniques used is risk management, a decision-making process designed to minimize the severity and risks of the hazards associated with current military operations.

The United States Army Safety Center (ASC) is the official repository for Army accident data. A difficult problem for the ASC is the identification and ranking of

present and future hazards in Army Aviation. The current analytical methodologies are limited in scope to basic statistical comparisons to identify major safety related hazards risks and controls (FY99 HQDA Army Study Program Proposal, 1998). This tends to lead to analysis and results that are reactive rather than proactive. While it is a fundamental principal of command that *every* soldier's life is valued decisions affecting doctrine implementation, policy changes and training are made based on this type of analysis. Army leadership needs a proactive process to evaluate hazards, risks and controls in order to effectively perform risk management at all levels of the Army (FY99 HQDA Army Study Program Proposal, 1998).

Currently, hazards are ranked by one or a few criteria. For instance, the current Army Aviation database, the Risk Management Information System (RMIS), ranks hazards by the number of accidents which are caused by that hazard, total cost of the accidents or a myriad of other categories taken singularly. This is an ineffective and inconsistent manner for ranking hazards. The current system does not provide decision-makers with enough information to make key, necessary tradeoffs for certain risk reduction decisions nor does it provide a baseline to make comparisons between different accidents or hazards. The current top hazards are based on which criteria are important at a given period of time. These critical criteria may change from month to month or year to year based on public opinion, needs of the Army or other operational factors. The unstable prioritization of the evaluation criteria leads to an inconsistent and possibly unsupportable decision-making process.

1.2 Background

While Army Field Manual 100-14, the army's risk management doctrine, outlines specific guidelines for determining the severity of a hazard, these guidelines are not consistently followed when analyzing hazards (Moon, 1998). Furthermore, the senior leadership of the Safety Center and the Army have expressed concerns that the current methodology does not provide senior decision-makers with an accurate, multi dimensional representation of the most severe hazards that plague the field of aviation. This study was conducted in cooperation with the Safety Center in order to provide commanders, at all levels, with an additional tool to help assess risk with greater accuracy. Although risk management is a command responsibility, commanders must be equipped with the proper tools to analyze and evaluate risks in order to make well-informed decisions. The goal is to make risk management a routine part of planning and executing all missions (Reimer, 1995).

To ensure the Safety Center's efforts to reduce risk remain correctly focused on aviation's most severe safety issues, the most problematic areas must be identified then their root causes addressed in order to decrease the associated risk. For the United States Army Safety Center hazards are the problematic areas. The senior leadership of the ASC has identified the need to develop a methodology to accurately rank the top hazards in the Army in order to allocate resources to the appropriate areas. The reduction or elimination of hazards falls under the umbrella of Risk Management. Army risk management applies across a wide range of military operations. Field Manual 100-14 explains the "principles, procedures and responsibilities to successfully apply the risk management process to conserve combat power and resources" (FM 100-14, 1998, pg. ii). Doctrinally, the risk

management process is incorporated into the planning of all military operations and training in order to assist in the identification and the assessment of hazards with greater precision. Traditionally, this process is implemented down the chain of command; yet, this process has not been adopted at some of the higher levels of decision-making and alternative evaluation (Warren, 1998). Specifically, the ASC does not account for the values discussed in FM 100-14 to incorporate the risk management process in their resource allocation procedures (Interview, Warren 1998). A result of an evaluation procedure consistent with the Army's values should lead to a more acceptable, consistent, and supportable ranking of hazards. Another application of these results may be a better methodology for allocating resources.

The process of identifying the objectives and associated measures involved an appropriate spectrum of people knowledgeable about Aviation hazards and resources available, including experts both inside and outside of the Army Safety Center. The output from this model is not limited to merely a list of hazards. The same value structure will be valuable for developing a portfolio of controls, designed to reduce hazard severity or risk, while limited by a budget. Several insights for the decision making process are available from the output of this model. The recommendations from this model do not take away from any decision-making authority from the Safety Center. In fact, the ASC's decisions will have a much stronger basis and authority (Keeney, 92) with the analysis actually being done up front. In addition, with "up front" analysis, decisions can be more quickly and more consistently with the values of the current chain of command and Army Doctrine.

1.3 Problem Statement

In order to integrate the Army's risk management process, as outlined the Army's field manual for risk management, and the Director of Army Safety's (DASAF) values into the Army Safety Center's resource allocation procedures, a methodology to more consistently evaluate Army Aviation hazards has been developed. Upon creating this rank order of hazards, resources may then be appropriately and optimally allocated.

1.4 Research Objectives

The objective of this research was to incorporate the values of the Army and its current decision-makers into a systematic, logical decision structure which analyzes existing hazards and develops a 'top ten" hazard recommendation list. A value hierarchy, discussed in Chapter Two, is the basis for developing alternatives and evaluating the worth of different solutions, such evaluation will facilitate making the tough tradeoffs by making them more explicit. Some of the associated sub-objectives are:

> 1) Structure a quantified model that represents Army Doctrine and the ASC's values with respect to aviation safety.
>
> 2) Identify the most severe aviation accidents.
>
> 3) Identify the highest risk accidents.
>
> 4) Prioritize by severity the hazards causing aviation accidents.

1.5 Research Approach

The foundation on which this research rests is the Director of Army Safety's FY98 Strategic Plan for the U.S. Army Safety Center. Specifically, objective number five: Develop a methodology and process for identifying and alerting the Army of the "top ten" hazards (FY98 Strategic Plan for the U. S. Army Safety Center, 1998).

Additionally, this analytical model incorporates the first three steps of the risk management process as outlined in Chapter Two of FM 100-14 (Risk Management).

Step 1. Identify hazards.

Step 2. Assess hazards to determine risks.

Note: The following steps will not be fully developed during this research project but they deserve to be mentioned here. Steps three and four will be addressed briefly and have been recommended as subjects for further development to the ASC. The methodology developed will promote improved controls and the generation of better controls. Controls are those steps taken or policies implemented to eliminate hazards or reduce their risk (FM 100-14, 1998).

Step 3. Develop controls and make risk decisions.

Step 4. Implement Controls (FM 100-14, 1998, p. 2-0)

Step 5. Supervise and Evaluate.

1.6   Scope of Problem

To accomplish the near term objectives of this study the scope of the research will be restricted in the following areas:

1. The study will be limited to analyzing hazards associated with rotary winged aircraft within Army Aviation.

2. Accident categories A, B and C will be the only accident categories used to gather data. Lower classes of accidents do not contain enough information to allow full evaluation.

3. Research will be limited to hazards which have produced mishaps, potential hazards will not be considered at this time.

4. The overall ranking of hazards will use data collected over the last eleven years. This time period best represents the tactics, techniques and aircraft types currently used in Army Aviation.

5. Currently, data is being transferred from the <u>A</u>viation <u>S</u>afety <u>M</u>anagement <u>I</u>nformation <u>S</u>ystem (ASMIS) older database to a newer, more user-friendly system the <u>R</u>isk <u>M</u>anagement <u>I</u>nformation <u>S</u>ystem (RMIS). At this time, the upgrade does not contain the data necessary to complete this research; the research was therefore based on data taken from the ASMIS database.

1.7   Overview

Chapter Two briefly covers some of the fundamentals of decision analysis that will be applied throughout this research effort and presents some of the current related literature. Chapter Three describes the methodology used to develop the value hierarchy, to include its associated measures, functions and weights, in addition to associating hazards with accidents to determine their severity. Chapter Four discusses the data used and the results obtained along with presenting a sensitivity analysis of the criteria in the value hierarchy. Chapter Five discusses overall conclusions and recommendations for follow-on-work to be conducted at the Army Safety Center. Data used and pertinent definitions are also provided in the enclosed appendices.

2   Literature Review

2.1   Introduction

Sizing up opponents to determine victory, assessing dangers and distances is the proper course of action for military leaders.

Sun Tzu, The Art of War

This chapter briefly introduces the reader to the decision analysis concepts used in this research. This discussion will include, at a minimum, the concepts and basis for value focused thinking which is used in this research extensively. Furthermore, some examples of literature that discuss the methods presented in this paper as applied to decision analysis problems in recent history will be presented.

2.2   Decision Analysis

While each individual decision has its own special set of issues, there are four basic sources of difficulty in making a decision. Decision analysis can help the decision-maker with all of them. A decision may be considered difficult due to:

1. Complexity.

2. Uncertainty in the situation.

3. The decision-maker may be working toward multiple objectives.

4. A situation where different perspectives may lead to different conclusions

(Clemen, 1996: 3)

By using decision analysis and applying different techniques for different situations better decisions can be attained. Better decisions do not necessarily mean better outcomes; a well-structured and well thought out decision may lead to poor outcomes. Decision analysis provides "structure and guidance for systematic thinking in difficult

situations" (Clemen 1996: 4). Decision analysis is not designed to do the decision-maker's job for him or her, yet it should provide the necessary structure for a well-informed decision. Derek Bunn, author of *Applied Decision Analysis* writes:

> [t]he basic presumption of decision analysis is not at all to replace the decision-maker's intuition, to relieve him or her of the obligations in facing the problem, or to be, worst of all a competitor to the decision maker's personal style of analysis, but to complement, augment, and generally work alongside the decision maker in exemplifying the nature of the problem. Ultimately, it is of most value if the decision-maker has actually learned something about the problem and his or her own decision-making attitude through the exercise (Bunn, 1984: 8).

Figure 2.1 depicts the systematic nature of the decision-making process.

| Questions | What do we want?
What do we know?
What can we do? | What are the
relationships?
What is important? | What are the possible
  outcomes?
What are the probabilities
  of those outcomes?
How much could
  we gain/lose? | Are we ready to
  decide OR how much
more information
would we be willing
to pay for? |

Iteration

Initial Situation → **Problem Structure** → **Deterministic Analysis** → **Probabilistic Analysis** → **Evaluation** → Decision

| Deliverables | Values
Value Hierarchy
Information
Alternatives
Influence Diagram | Value Model
Sensitivity Analysis
Critical Uncertainties | Probability Distributions
Dominated Alternatives
Risk Profiles | Value of Information
Value of Control |

Figure 2-1   A Decision Analysis Process Flowchart (Clemen, 1996: 6)

Once the decision situation is identified and the objectives are understood, the problem can be structured. There are a series of example questions that might be asked during the different phases of the process and some expected deliverables. These are depicted in Figure 2.1. Proper time and care should be given to the formulation of the

problem to ensure the necessary values and alternatives are identified. A deterministic and probabilistic analysis should be conducted along with a sensitivity analysis to determine the effect that uncertainty has on final recommendations. At this point, a solution may be recommended or further analysis may be deemed necessary (Clemen, 1996: 6).

The process of decision-making, when dealing with multi objective problems is indeed complicated. This is due to the inherent complexity of these problems and because humans commonly rely on intuition to solve problems and make decisions. Intuition can fail when the decision-maker must make tradeoffs between conflicting objectives, account for uncertainties and dependencies between measures and possibly account for scaling problems within measures used (Kirkwood, 1997: 2). The Army places a great deal of confidence in the problem solving abilities of its senior decision-makers. These individuals regularly deal with complex multi-objective problems. Intuition and past experience are used to balance choices, facts, available information and preferences to arrive at a logical decision for small or straightforward problems. As the problem and the decision context increase, certain decision-making theories and practices can assist these decision-makers in making logical and consistent decisions.

2.3 Value Focused Thinking

There are two basic thought processes that deal with the structure of decision analysis problems, these are alternative focused and value focused thinking. Alternative focused thinking, throughout the literature, has been deemed the traditional approach and is characterized as "reactive not proactive" (Keeney, 1992: 33). Alternative focused thinking develops alternatives to solve the problem by considering alternatives. Focusing

on the alternatives may sometimes cloud the issues at hand. A decision-maker expends his or her precious time evaluating alternatives rather than considering what is wanted, or "valued", from the decision. The focus remains on the choices not what the choices *should* be.

The second manner in which problems may be structured is value-focused thinking (Keeney: 1992). Value focused thinking provides the analyst with a means to present recommendations to a decision-maker that are logical and consistent with a certain set of values. That set of values should be based on the organization's or individual's goals and objectives. The set of values obtained is organized into a hierarchy with the overriding strategic objective, or goal, at the apex and supporting objectives (criteria), sub-objectives (sub-criteria) and measures of merit as depicted below.
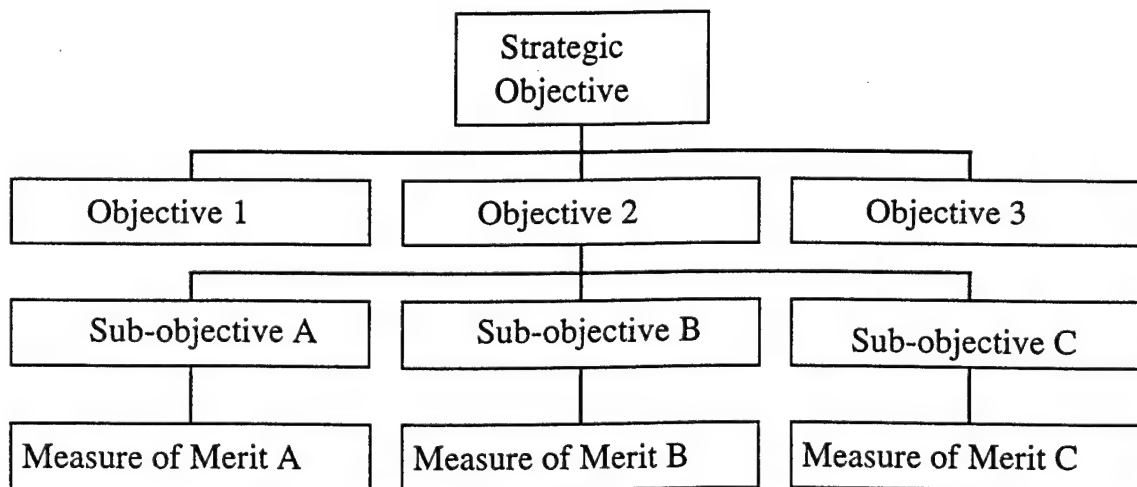
Figure 2-2   Value Hierarchy (Kloeber, Parnell: VFT Brief)

This value hierarchy is usually obtained by one of two methods; the gold standard or the silver standard (Kloeber, Parnell, 1998: VFT Brief). The method used is not necessarily

a choice rather the decision context and information available guides you towards your technique. The development of a value hierarchy is summarized below:

- Identify sub-objectives required to achieve objectives

- Identify measures of merit that quantify the value of achieving sub-objectives

- Assign weights to the sub-objectives and objectives

"The desirable properties for a value hierarchy should be completeness, non-redundancy, decomposability, operability and small size" (Kirkwood, 1997: 16).

- Completeness: Each tier must adequately cover all concerns necessary to evaluate the overall objective.

- Nonredundancy: No two evaluation considerations, which are in the same tier, should overlap.

- Decomposability (Independence): The preference of one evaluation consideration should not depend on the level of another.

- Operability: The hierarchy must be understandable by the person or group that will use it.

- Small size: A small hierarchy is generally easier to use, this property should not interfere with maintaining the other properties.

The gold standard development is a deductive method that takes existing standards, visions, or objectives and expands them. These standards, visions, and objectives can be found in a variety of places. Steps certainly needed to be taken to develop the rest of the model, but receiving initial buy-in of the gold standard makes further development much easier to present to decision-makers. Each value will be clearly defined and broken down further until it is explicitly measurable.

This manner of developing a value model is not always possible. Military doctrine, standing procedures or an explicit vision statement may not exist for the

decision opportunity at hand. In such a case the silver standard development may be used. This is an inductive method where experts in the specific field under investigation develop a new value definition. This starts off with a brain storming session concentrating on the use verbs. This method provides new insights but requires many more participants and substantially more time to develop and establish support for. Once the brainstorming session is complete the experts form groups of like tasks and build their model from the bottom up instead of the top down (as in the gold standard development). The Air Force's 2025-value model was developed in this manner (AF 2020 An Operational Analysis, 1997)

The decision analysis cycle can be broken down into thee distinct phases: deterministic, probabilistic, and informational phase as depicted in Figure 2.1. In the first phase, deterministic, we are primarily concerned with developing our problem and our model. Here uncertainty is disregarded. By simplifying the form of our input data we can ensure that the structure of our problem will provide the output we want. That is not to say that we either agree or disagree with that output, we are more concerned that the output is of the correct form and provides meaningful information to the decision at hand. To ensure that an accurate model is developed, the value model must have a solid base with measures be well defined. Furthermore, although the value hierarchy specifically represents either the organization's or an individual decision-maker's internalized values, the range and utility of each measure must be accounted for. This can be accomplished through a series of interviews with the decision-maker. Misrepresentation of the value or utility curves of individual measures will skew the overall results. The model will still be consistent, yet may not accurately portray the best options. The effect of slight changes

in measurements may or may not have a prominent effect on the outcome; this can be examined in detail during the information phase with sensitivity analysis.

The probabilistic phase accounts for the uncertainty in the influential variables of our problem. The importance of this phase varies from problem to problem. Obviously the more uncertainty that is actually in the problem the more important the probabilistic phase. Some decisions can actually be made, with confidence in the recommendations, without incorporating uncertainty. This phase also allows the analyst to account for the risk tolerance of the decision-maker. By incorporating the uncertainty a wide range of analysis is available that is not possible in a purely deterministic model.

The last phase is the informational phase. Once model development is complete and uncertainty is included, it is time to organize the output to provide meaningful recommendations to the decision-maker. Sensitivity analysis plays a major role in this phase. By varying measures, weights, distributions or other variables that might provide insight, we can determine where a change in the decision policy should occur. Furthermore we can determine which measures the decision policy is sensitive to and decide which measures to gather more information on or probabilistically model. This becomes extremely valuable, especially if there is conflict surrounding the weighting of different values. In short, if the policy is not sensitive to a certain measure, the weight does not matter. Each one of these phases is used in this research and will be discussed in detail in Chapter Three.

2.4   Multiattribute Preference Theory

In order to compare alternatives using a value hierarchy (multiobjective value analysis) it is necessary to develop a model that combines all of the evaluation

considerations into on dimensionless score. Determining this model requires that single dimensional value functions be specified for each evaluation measure (Kirkwood, 1997: 53). These functions are determined through an interview with the decision-maker or his designated representative. The function should represent the way the decision-maker and/or the organization feels about different increments in value throughout the range of the evaluation measure. When incorporating uncertainty the functions are developed differently and are now referred to as utility functions. The difference in the formulation of the utility function is that the decision-maker now answers lottery type questions about each of the evaluation measures that contains uncertainty. The development of each of the functions for this research effort is discussed in Chapter Three.

The overall value function, which combines the values of all the single dimensional value functions, may be an additive value function. The additive value (or utility) function is a weighted average of all the single dimensional value (utility) functions within the value hierarchy (Kirkwood, 1997: 230,248).

2.5   Value Focused Thinking Application in Current Literature

This section provides some selected applications where value focused thinking was used to solve large-scale problems. Each problem is completely different in goals, stakeholders and specific problems. The common thread is that in each situation the fundamental objectives are identified and the decision analysis is not focused on the alternatives.

The National Aeronautics Space Administration was concerned with the selection of future space missions. The choice of space missions to accept is extremely complex.

There are numerous stakeholders involved with multiple uncertainties, competing objectives and numerous uncertainties. The foundation on which the mission selection process was developed was the objectives, or goals. NASA identified and prioritized their objectives as shown below.

Table 2-1 NASA's Objectives (Keeney, 1998)

Objective	Ranked	Relative
Enhance National Pride	1	100
Aid national defense	9	20
Promote international prestige	8	35
Foster international cooperation	7	40
Create economic benefits	5	50
Advance scientific knowledge	4	60
Promote education	6	45
Provide excitement and drama	2	90
Maintain fiscal responsibility	3	70

The possible mission alternatives were compared against the above criteria. The missions that were then ranked in priority order. Relative tradeoffs were discussed and paired comparisons were done between alternatives. One of the aspects of value focused thinking that was very valuable in this situation was how the multiple stakeholders were involved in the decisions. Furthermore, the stakeholders objectives were integrated into a combined hierarchy.

Multiattribute utility analysis has been used as a framework for public participation when dealing with environmental issues. In particular Sandia National Laboratories (SNL) used this approach to involve stakeholders within the local

community where a corrective action management unit (CAMU) was to be erected. The approach allowed technical experts to explain the essential technical considerations while allowing the local stakeholders to take part in establishing the value judgments made for the decision. This situation utilized a power-sharing concept and allowed free access to information. Furthermore this method was able to transfer technical competency to the public. The MUA approach enabled stake holders to participate effectively, even though they had limited understanding of all the technical details (Merkhofer, 1997: 838).

The Department of Energy has used value focused thinking extensively. Part of the Department of Energy's (DOE) program to evaluate alternatives for managing spent fuel was based on VFT (Keeney, 1998). Furthermore, in an AFIT thesis by Brian Grelk, *A CERCLA-Based Decision Support System For Environmental Remediation Strategy Selection*, the author develops a set CERCLA based evaluation measures and their corresponding single dimensional value functions to recommend spill remediation strategies. The uses of value focused thinking by the Department of Energy are clearly focused on public safety and regulations.

Numerous agencies throughout the Department of Defense have done quantitative and qualitative studies on the severity and probability of hazards and accidents. The ASMIS database was used by ANACAPA Sciences during a study of aircraft component failure. Analyses were conducted to determine the feasibility of extracting failure data from the existing database and calculating failure rates from that data. The analysis identified parts with relatively high failure rates. This data has been used to identify problematic components or parts, to monitor trends and to develop countermeasures to reverse part failure rates (ANACAPA, 1993:6).

The System Safety Risk Assessment Manual, developed at the Naval Safety Center, was prepared to assist system safety managers in making informed risk management decisions. The information was drawn from MIL-STD-882B, Navy Safety School Course Material and other information sources. It compiled several of the more common ways of defining safety risk. This report also introduced some new safety management concepts referred to as relative worth index and a safety performance baseline. The relative worth index takes five weighted factors to determine the relative magnitude of risk (or impact on the Navy) from the loss of a certain aircraft. A performance baseline establishes system and subsystem baselines, based on mishap rates. The research described in this report seems to touch on some of the concepts of value focused thinking but does not explain the theory behind its calculations nor does it cover the development or support of the evaluation criteria. The intended users for this report are the system safety and program managers (Kinzey, 1989:13, 24).

Based on the wide range of applications found in current literature, although no specific reference was found that explicitly describes the use of value focused thinking and multiattribute preference theory applied to aviation safety, the approach is certainly valid.

3 Methodology

3.1 Introduction

Risk Management is not an add-on feature to the decision-making process but rather a fully integrated element of planning and executing operations...Risk management helps us preserve combat power and retain the flexibility for bold and decisive action. Proper risk management is a combat multiplier that we can ill afford to squander.

General Dennis J. Reimer
Chief of Staff, Army
27 July 1995

A value focused thinking and multi attribute value theory approach to decision analysis is applicable to a wide range of problems. This is a valuable and structured manner by which a decision-maker can deal with problems involving various stakeholders with multiple competing objectives that require tradeoffs. Decision analysis is commonly used to make better tactical and strategic decisions that are not merely routine. Examples include business decisions involving long term and short term financial tradeoffs, balancing the tradeoffs between the efficiency of a manufacturing process versus the impact on the environment and even personal decisions involving career opportunities, employment, or purchases. Better analysis can be done and better decisions can be made using value focused thinking and multi attribute value theory. Furthermore, the decision-maker can explain the reasons for the decision easier and in a more structured fashion (Kirkwood, 1997: 1).

After determining the exact nature of the U. S. Army Safety Center's decision context and problem, and examining the analysis techniques available, a value-focused approach to the multiattribute preference problem seemed the most logical technique to use. When

examining the hazards and accidents there was no clear "winner" or "loser". No one accident or hazard, nor group of hazards, was easy to label as the most severe. The tradeoffs involved were numerous. Some of the areas of concern included cost incurred, soldier and civilian's lives lost, training time lost, and maintenance time allocated. In addition to these competing objectives there are numerous stakeholders that are affected by this ranking of hazards; the soldiers flying the aircraft, the unit deploying to war and the leadership of the Safety Center trying to implement risk management policies throughout the Army to mention a few. There is currently no structured method in place used to analyze hazards based the multiple objectives and various stakeholders mentioned above. Value focused thinking provides a base of evaluation to enable the Safety Center to make logical and consistent assessments of hazards using the current values of the Army. Involving the stakeholders at risk, and using the current values and doctrine of the Army to balance the tradeoffs between the various competing objectives, will make it easier to succeed at getting every one involved working toward a common goal and attaining a consensus on the outcome of the research.

The research effort was broken into three distinct phases: the deterministic, probabilistic and informational. In the deterministic phase, the accident value model is developed, data is collected and manipulated, and a dry run of the model is performed to see if the output from the model is the type of output required. During the probabilistic phase, accidents are associated with hazard occurrences to determine hazard severity and accident/hazard risk. In the informational phase it is time to organize the output to provide meaningful recommendations to the decision-maker. Sensitivity analysis plays a major role in this phase.

This chapter will cover in depth the development of the accident value hierarchy to include the evaluation measures and single dimension value functions, the methods of assessing weights and the application of the additive value function and power additive utility function. Furthermore, the accident severity scores will be combined together with their associated probabilities to attain a hazard severity and a hazard risk score

3.2 Accident Model Value Hierarchy

A hazard is "any actual or potential condition that can cause injury, illness, or death of personnel, damage to or loss of equipment, property or mission degradation" (FM 101-14, 1998: G-1). A hazard may or may not produce an accident (or mishap). Commonly, if a hazard is present in an operation, goes unchecked, and does not cause an accident, that hazard will go unnoticed and unrecorded. The information available for this research purely dealt with hazards that have resulted in accidents, for which the Safety Center maintains detailed records as well as the frequency of those accidents. The basis for evaluating a hazard rests in the severity of the accidents it causes. Therefore, the severity of an accident must be assessed to determine the severity, and risk, of the hazard that caused that accident.

In order to avoid confusion, the following definitions are provided in this section (as well as Appendix A).

1) Severity: The expected consequence of an event (hazardous incident) in terms of degree of injury, property damage, or other mission impairing factors that could occur (FM 101-14, 1998: G-3).

2) Risk: Chance of hazard or bad consequences; the probability of exposure to chance of injury or loss from a hazard; risk level is expressed in terms of hazard probability and severity (FM 101-14, 1998: G-2).

3) Accident: An unplanned event that causes personal injury or illness, or property damage (Army Regulation 385-40).

4) Hazard: Any actual or potential condition that can cause injury, illness, or death of personnel, damage to or loss of equipment, property or mission degradation (FM 101-14, 1998: G-1).

Although the above definitions appear descriptive, during the development of this model there was much discussion with experts at the Safety Center concerning what constituted accidents and hazards. For the purpose of this study, "events" (hazardous incidents) that are contained in the Safety Center's current database are referred to as accidents and "system inadequacies" are referred to as hazards. Further research will be done to develop a better taxonomy to determine hazards.

In order to determine the severity of the accidents currently in the database, the attributes by which severity is measured needed to be determined. Value focused thinking is an organized and logical method to accomplish this and is the method used in this research. The general principle of value focused thinking is to discover all of the information useful in guiding one's decision" (Keeney, 1992: 23). A value hierarchy, developed properly, should "indicate everything [you] really care about in a decision context (Keeney, 1992: 23). The most preferred method of developing a value hierarchy is by utilizing a gold standard, if one exists. The gold standard utilizes existing values or standards of an organization and develops measures for those values in a top to bottom fashion. Army doctrine contains specific criteria by which the severity of a hazard should be assessed. FM 100-14 is the Army's official risk management manual and this set of criteria was established by the Safety Center as the standard criteria to be used to evaluate hazards. To use this set of criteria to determine hazard severity each category

3-4

had to be broken down into more explicit measurable parts. This was done by starting at the top objective and developing measures down to the lowest level. This method of moving from the top to the bottom is appropriate when the possible alternatives are unclear (Kirkwood, 1997: 21). In the case of this research, accidents, not alternatives, are evaluated. There is a wide range of accidents, the full range of which is unknown. A top down method is better suited for this type of situation. The Gold Standard method also makes attaining buy-in from the stakeholders in the organization much easier.

In the case of risk management, Army doctrine provides the gold standard. The U.S. Army relies on doctrine to set forth the standards and methods by which the officers and enlisted soldiers conduct their daily operations. The Field Manual 100-14: *Risk Management* printed in April of 1998 is the Army's doctrinal manual concerning Risk Management. This manual covers a wide range of Army operations and can be applied to almost all aspects of military life including Army Aviation. It explains the "principles, procedures, and responsibilities to successfully apply the risk management process to conserve combat power and resources"(FM 100-14, 1998: ii). This research focuses specifically on the second step of the risk management process; assess hazards to determine risks. FM 100-14 specifically outlines the terms in which the severity of an accident can be expressed:

- Degree of injury or illness
- Loss of or damage to equipment or property
- Environmental damage
- Other mission impairing factors such as loss of combat power

When assessing the degree of severity of an accident, doctrine confirms that the severity may be "based on knowledge of the results of similar past events" (FM 100-14, 1998: 2-9). This is the approach taken in this research effort. This set of criteria develops the first tier of the value hierarchy shown below.
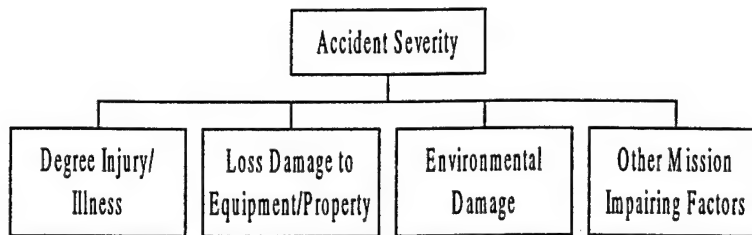
Figure 3-1   Top Level Criteria of Value Hierarchy

The standards set forth in doctrine, interviews with risk management experts and accident investigation reports verified that these four criteria were collectively exhaustive and mutually exclusive. This means that the evaluation considerations in each layer, taken as a whole, include everything needed to evaluate each accident and nothing necessary to do the assessment are included in more than one criterion (Kirkwood, 1997: 17). Next, the evaluation criteria for each of the criteria needed to be developed. If there exists a good measure for the fundamental objective, that measure will be used. Otherwise, the fundamental objective will need to be broken down into more explicit measurable parts.

3.3   Evaluation Measures

This section will introduce the reader to the development of the Accident Severity Sub-Criteria and the metrics used to measure these sub-criteria. Some of the criteria, sub-criteria, and measures are self-explanatory but they are all discussed below. The evaluation considerations are broken down further into the metrics that will be used to

measure each of the areas of concern. Measures can be classified as either one of the scales below:

- Natural: In general use with a common interpretation by everyone.

- Constructed: Developed for a particular decision problem to measure the degree of attainment of an objective.

They are further classified as one of the following:

- Direct: Directly measures the degree of attainment of an objective.

- Proxy: Reflects the degree of attainment of an associated objective(Kirkwood, 1997: 24).

Assessment of the severity of an accident does not account for the probability of occurrence. This is merely the expected consequence of an accident in terms of degree of injury, property/environmental damage, or other mission impairing factors that could occur (FM 101-14, 1998: 2-7). The considerations below have been agreed upon within the Safety Center, and are supported by doctrine, as proxy measurements for accident severity. To determine the severity of each accident the evaluation criteria presented in the following sections was used.

3.3.1 Degree of injury or illness:
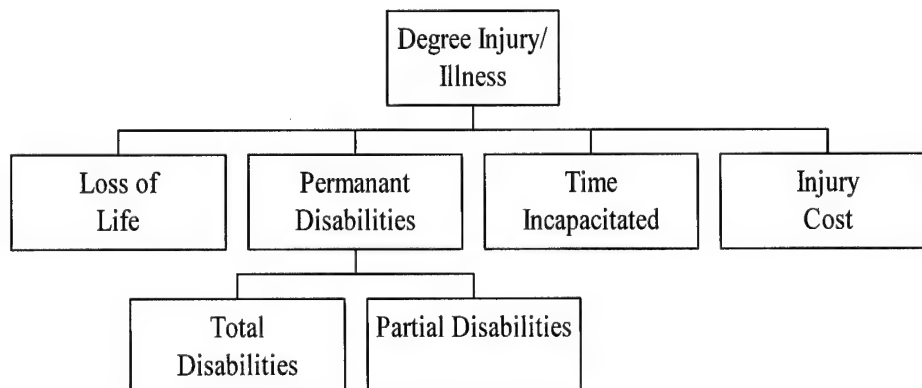
Figure 3-2 **Criteria: Degree of Injury or Illness**

This criterion is designed to measures the severity of the injuries that occur in each type of accident. The considerations that were taken into account for the severity on an injury were focused on the impact on the individual, the unit and the Army as a whole. According to Army Regulation and Department of the Army Pamphlet 385-40, Field Manual 100-14, and the senior leadership of the USASC the evaluation considerations below adequately cover all the concerns necessary to evaluate the degree of the injury.

3.3.1.1 Loss of Life

This is a natural-direct measure scale that assesses the number of lives lost during an accident. All fatalities related to an accident are included, civilian and military personnel.

3.3.1.2 Permanent Disabilities

There are two categories of permanent disabilities accounted for in the ASMIS database and this study, they are discussed in the following two sections.

3.3.1.2.1 Total Disability

This is a natural-direct measure scale that assesses any nonfatal injury or occupational illness that, in the opinion of a competent medical authority, permanently and totally incapacitates a person to the extent that he or she cannot follow any gainful employment. (The loss or loss of use of both hands, feet, eyes, or any combination thereof as a result of a single accident will be considered as a permanent total disability (DA PAM 385-40, 1994: 143).

3.3.1.2.2 Partial Disability

This is a natural-direct measure scale that assesses any injury or occupational illness that does not result in death or permanent total disability but, in the opinion of competent medical authority, results in the loss or permanent impairment of any body part, with the following exceptions:

1 Loss of teeth.

2 Loss of fingernails or toes.

3 Loss of tip of fingers or tip of toe without bone involvement.

4 Inguinal hernia, if it is repaired.

5 Disfigurement.

6 Sprains or strains that do not cause permanent limitation of motion (DA PAM 385-40, 143).

3.3.1.3 Time Incapacitated

This is a natural-direct measure scale that assesses the number of days hospitalized, where hospitalization is defined as "admission to a hospital as an inpatient for medical treatment" (DA PAM 385-40, 1994: 143).

3.3.1.4 Injury Cost

This is a natural-direct measure scale that assesses the total cost of the injury to the government in dollars. An accident investigation board, in coordination with competent medical authority determines the cost. The cost determined by the board is the official and the only cost used for the accident investigation report. The cost figure

includes the cost of pay while away from work, medical treatment, hospitalization, dependent survival, unused training costs, gratuities, compensation, disability retirement, and burial (AR 385-40, 1994: 8).

3.3.2 Loss of or damage to equipment or property:

```
┌─────────────────────┐
│  Loss/Damage to     │
│ Equipment/Property  │
└─────────────────────┘
           │
      ┌────────────┐
      │Repair/Replace│
      │    Cost     │
      └────────────┘
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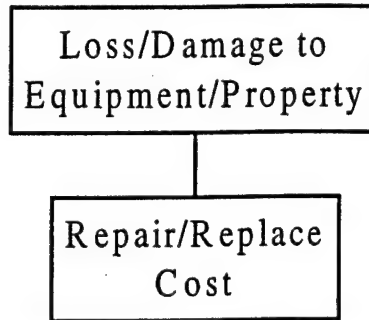
Figure 3-3   Criteria: Loss/Damage to Equipment/Property

There are some issues that need to be investigated further to determine whether the loss of secure equipment and certain types of equipment losses can be tracked and measured accurately. These proposed measures are presented at the conclusion of this paper. At this time this evaluation criteria contains only one measure that sufficiently represents the fundamental objective.

3.3.2.1 Repair/Replacement Cost

This is a natural-proxy measure scale that assesses the total cost of the accident with respect to equipment or property. This cost is determined by the accident investigation team and reported in an estimated cost of damage (ECOD) found on the final accident report. The cost computation criteria are found in Army Regulation 735-11 and include such things as actual costs of new or used parts or materials and labor costs (usually

estimated). When damaged equipment cannot be replaced, the cost reported will be the acquisition costs (AR 385-40, 8). The cost determined by the accident investigation board is the official and only cost used to determine the repair or replacement cost for Army equipment.

3.3.3 Environmental Damage

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          ┌──────────────────┐
          │  Environmental   │
          │     Damage       │
          └──────────────────┘
                   │
          ┌──────────────────┐
          │   Severity of    │
          │     Damage       │
          └──────────────────┘
                   │
      ┌────────────┼────────────┐
┌───────────┐┌───────────┐┌────────────────┐
│Oil Spilled││Fuel Spilled││Hydraulic Fluid │
│           ││            ││    Spilled     │
└───────────┘└───────────┘└────────────────┘
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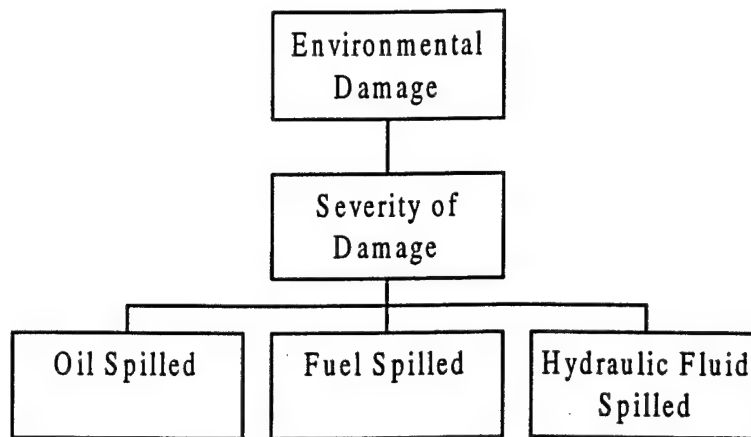
Figure 3-4   Criteria: Environmental Damage

This area of concern considers the severity of the damage to the environment. This is the only evaluation consideration for this criterion. Although the Army's Risk Management doctrinal manual includes environmental damage as one of the top four criteria for determining the severity of an accident, there is little data available to facilitate an accurate measure of the damage caused by an accident. For this criteria a proxy measure scale was developed that used available data to determine some type of rating system for damage to the environment. This criteria contains three measurements: gallons of oil spilled, gallons of fuel spilled, and gallons of hydraulic fluid spilled. At this time, the measures for the severity of environmental damage are not collectively exhaustive. This research has been conducted using data from the past ten years; no additional data

concerning environmental damage was collected. Different data collection procedures may be initiated in the future by the Safety Center to collect more detailed information concerning the environment. While this is an area for future research, it is beyond the scope of the current study.

3.3.4 Other Mission-Impairing Factors
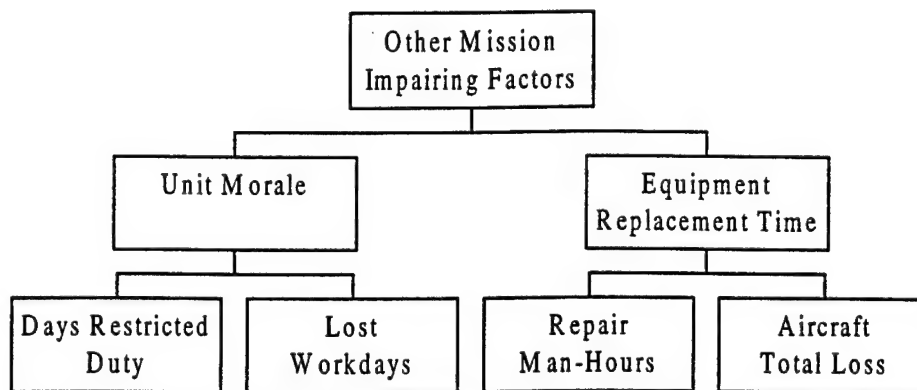
Figure 3-5   Criteria: Other Mission Impairing Factors

This criteria was designed to give the planner, or the person assessing the risk of a certain mission, the latitude to tailor the assessment specifically towards his mission. Mission-impairing factors for an infantry squad might be different than those of an aviation brigade although some may be the same. For example, heavy ground fog or heavy flooding may impair an infantry squad's river crossing but not an aviation brigade's deep attack on an enemy communication's sight. On the other hand unit morale is an area of concern for all levels of military operations. Hence, ground conditions may be included in the infantry squad's mission impairing factors and not in the aviation brigades while unit morale would be included in both value hierarchies.

This research is limited to Army Aviation Rotary Winged accidents. Unit readiness is the overall criteria. Unit morale and equipment replacement time are the two sub-criteria that are a proxy for the level of unit readiness. These two criteria combined represent how well the unit will perform and how well their equipment is prepared. Throughout this report, when referring to unit readiness, the unit is a company size element. A Company element ranges from approximately forty soldiers and 8 aircraft in an AH-64 equipped Attack Company to 100 soldiers and 24 aircraft in a UH-60 equipped Assault Company. For a company size element, with the data available, this evaluation consideration is collectively exhaustive and mutually exclusive. Recommendations have been made for further research to further develop this area of concern. Most notably, the Safety Center is concerned with the loss of Special Mission Aircraft but there is currently no way to measure the impact on a specific unit that looses one of these aircraft.

3.3.4.1 Unit Morale

The morale of a unit, historically, is correlated to the performance of a unit and therefore, unit readiness. As a soldier's time on restricted duty and lost workdays increase, a strain is put on the other members of the unit. For a short period of time the other members of the company can compensate for the loss of an individual, but as time goes on and people become tasked with unfamiliar jobs along with their normal duties, morale will tend to decrease. This measure assumes that all jobs are equal. Obviously, the loss of a Company Commander or a Senior Instructor Pilot will have a greater affect on the unit than a newly assigned pilot. Personal experience and interviews with various commanders and the leadership at the ASC determined that the measures below cover the

concerns to adequately evaluate unit morale. There are other indicators of unit moral (i.e. mission rate, commander's performance) but these are not associated with this study.

3.3.4.1.1 Days of Restricted Duty

This is a natural-direct measure scale that assesses the number of days that an individual (or all individuals involved) are unable to perform their normal duties (i.e. light duty, profile, grounded from flight) (DA PAM 385-40, 142)

3.3.4.1.2 Lost Workdays

This is a natural-direct measure scale that assesses cases in which an accident results in Army personnel missing one or more days of work. Days away from work are those workdays (consecutive or not) on which Army personnel would have worked but could not because of injury, occupational illness, or job relates physical deficiencies detected during medical surveillance examinations. Excluded are days that Army personnel would not have worked even though able to work (i.e. weekends or holidays) and the day of the injury or onset of the occupational illness (DA PAM 385-40, 141).

3.3.4.2 Equipment Replacement Time

Equipment readiness is a large contributor to unit readiness. The two measures below represent the time the unit will be without a specific piece of equipment, in this case an aircraft.

3.3.4.2.1 Man-Hours to Repair

This measure assesses the direct man-hours required to restore the aircraft to serviceable condition if it is economically repairable. A unit's operational readiness rate is

measured partially by the down time of aircraft within the unit, man-hours to repair the equipment is a proxy measurement for down time. A proxy measurement is required because aircraft down time while recorded and maintained at the unit level, was unavailable for this research. The hours are originally estimated using technical manual estimates. When work is complete, they are reported back on an Equipment Inspection and Maintenance Worksheet (DA Form 2404). The direct man-hours are a summation of the following:

> 1 The cumulative (estimated) man-hours required to remove, repair, and replace damaged aircraft assemblies, subassemblies, or components.
>
> 2 Man-hours expended in removing and replacing undamaged aircraft components in order to remove, repair, or replace damaged components.
>
> 3 Man-hours required to remove and replace a part that is not economically repairable.
>
> 4 Man-hours expended to determine damage amount (AR 385-40, 8).

3.3.4.2.2 Aircraft Total Loss

If the aircraft is deemed not economically repairable, it is determined to be a total loss. Depending on the type of aircraft and the number of that specific aircraft available to the unit, it may or may not be replaced. Regardless of the outcome, both cases normally result in a large time delay with regards to returning an aircraft back to the unit in a fully operational condition.

Doctrine, Army regulations and the Operations Research/Statistics (ORSA/STATS) Division of the Army Safety Center support each of the evaluation considerations presented. Aside from some concerns that have been discussed above, the

evaluation considerations have been developed in sufficient detail, are mutually exclusive.

3.4   Single Dimensional Value Functions

The previous section presented a summary of each evaluation measure; this section will cover the procedure for determining the piecewise linear single dimension value functions developed in this study. The range specified for each measure represents the range of the expected values of all accidents for that measure. To determine the value functions, relative value increments needed to be specified between each of the possible evaluation measure scores (Kirkwood, 62). The severity functions were developed during an interview with LTC Oren Hunsaker, the Operations Research and Statistics Division Chief at the U.S. Army Safety Center. LTC Hunsaker is an Army Aviator with over 18 years experience in the field of Army Aviation.

3.4.1   Degree of injury or illness:

3.4.1.1   Loss of Life

The range of the number of lives lost across all accidents varies from 0 to 17. As soon as an accident causes 1 fatality the severity function increases to a severity of .5. After the first fatality the function becomes linear which represents that the severity increment of each additional life is equal. The decision-maker expressed a zero tolerance for loss of life. Still, he felt there should be a substantial increase in the degree of injury when one fatality versus zero fatalities occurs. Therefore the severity increment given to an accident when one fatality occurs is more drastic than when the number of fatalities increases from one to two.
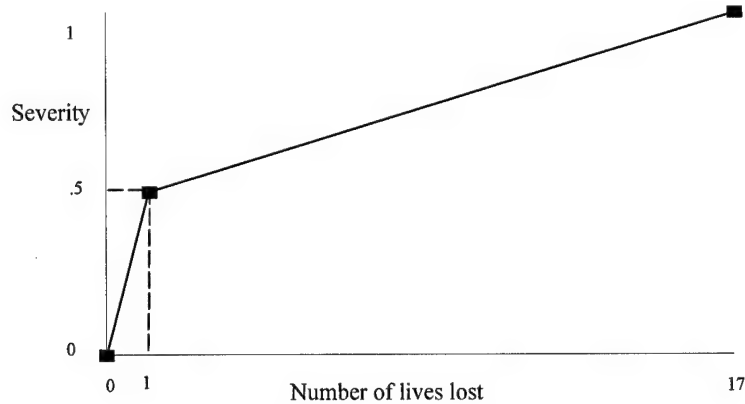
Figure 3-6   SDVF: Lives Lost

3.4.1.2 Permanent Disabilities

Aside from a fatality, the most serious type of injury is a permanent disability (AR 385-40).   There are only two classes of permanent disabilities tracked by the Safety Center these are partial and total. The greatest severity increment is associated with the first occurrence of a partial disability. As represented by the Figure 3.7 below, the severity increment from zero partial disabilities to one partial disability is .25. After this initial jump the severity increment stays linear throughout the remainder of the range.

Figure 3.8 represents the total disabilities. The maximum total disabilities caused by any one accident is two. The decision-maker indicated that the severity increment for the occurrence of the first total disability is three times as great as the second. This does not indicate that the first soldier injured is more important, rather this indicates that the severity of the accident being evaluated will increase greater with the first occurrence of a disability than it will the second.
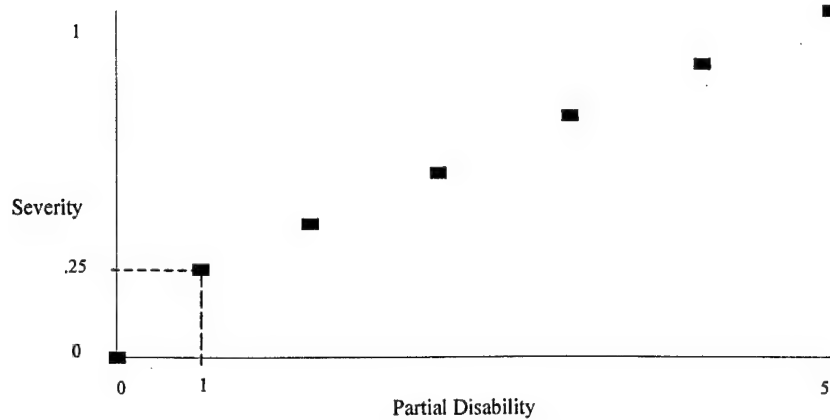
Figure 3-7   SDVF: Partial Disabilities
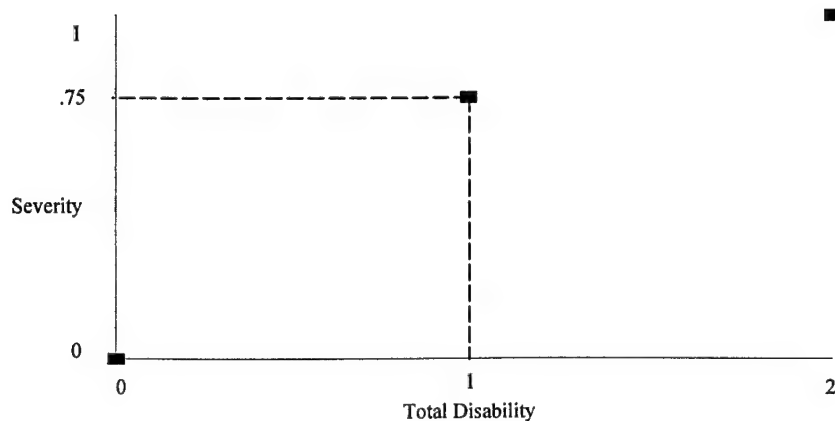
Figure 3-8   SDVF: Total Disabilities

3.4.1.3   Time Incapacitated

Other than cost, days hospitalized is the last measure of the severity of an injury. The

function below represents the number of days an individual involved in the accident was

hospitalized, in accordance with the definition in section 3.3. The range of scores from

the current database is from 0 to 248 days (the maximum amount of days an accident

victim was hospitalized).

The consideration taken into account during the interview was the impact on both the individual and the organization. Based on the military experience of the Chief of the ORSA/STATS Division at the Safety Center, he felt that the first two weeks of hospitalization causes the greatest relative impact on the victim, the family, and the unit. After the first two weeks the function represents an equal increase in severity for each additional day hospitalized.
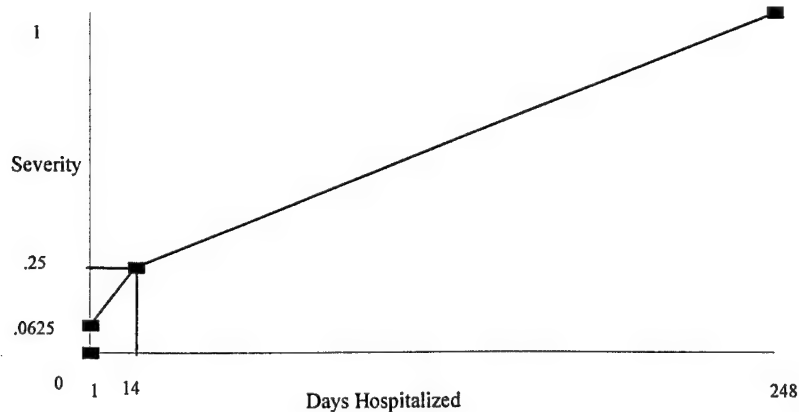
Figure 3-9   SDVF: Days Hospitalized

3.4.1.4   Injury Cost

The last metric used to determine the degree of injury is the cost of the injuries caused by the accident (AR 385-40, 4). The basis for the severity increments depicted in the function below are the monetary increases that contribute to the classification of an Army accident. For a discussion of the Army mishap classification system refer to Appendix C. The decision-maker felt the severity increment from going from a Class B accident to a Class A accident was 5 times greater than the value increment moving from

a class C, D or E to a Class B.   As the dollar amount nears one of the thresholds the slope
of the severity function begins to increase rapidly.

a) The accident classification increased from Class E to a Class B
($200,000- $1 Million) or

b) The accident classification increased from a Class B to a Class A
(greater than $1 Million)
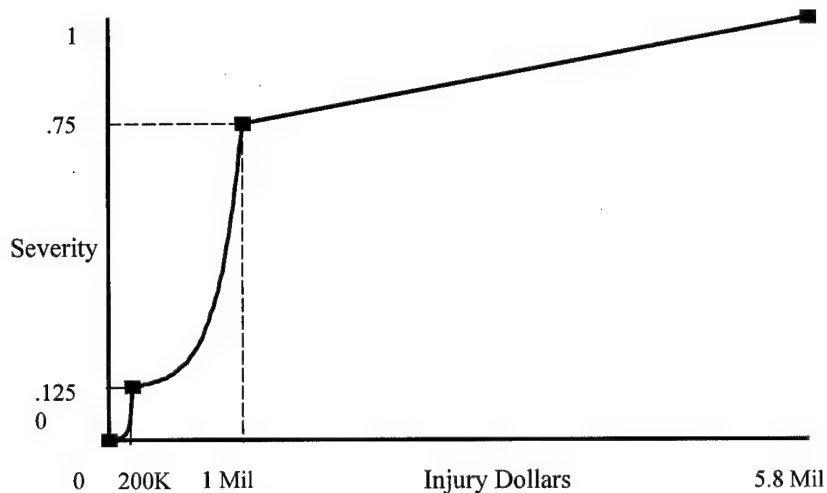
Figure 3-10   SDVF: Injury Dollars

3.4.2   Loss of or damage to equipment or property

The severity function for the repair/replacement dollars was developed in a
similar fashion to the injury cost above. The classification of accidents also depends on
the cost of the damage as shown below:

1) <$200,000: Class C and below

2) $200,000-$1 Million: Class B

3) Greater than $1 Million: Class A

Due to the large range of damage cost, most of the thresholds occur near the lower end
of the range but the severity continues to increase linearly as the cost increases once the

3-20

Class A threshold has been surpassed. This linear increase enables the model to distinguish between different cost levels of Class A accidents.
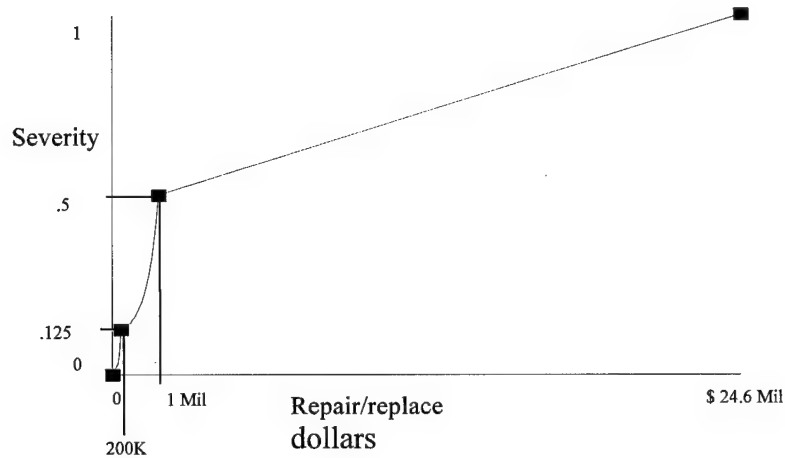
Figure 3-11   SDVF: Repair/Replace Dollars

3.4.3   Environmental Damage

The Severity Function for gallons of fuel, oil, and hydraulic fluid spilled in an accident are all the same. The data available was categorized in bins:
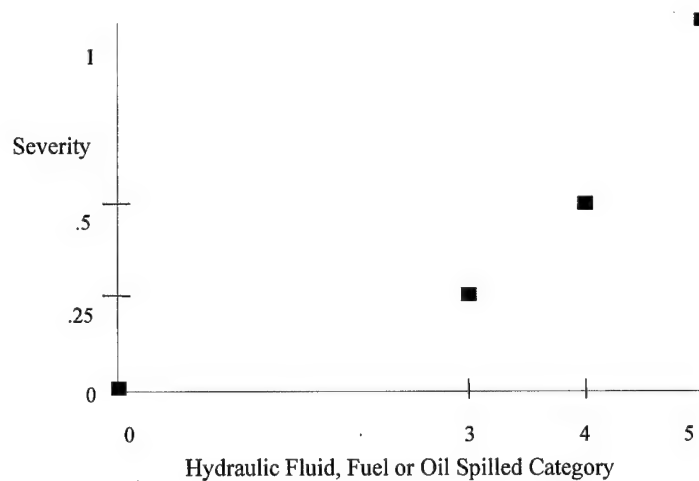
Figure 3-12   SDVF: Fluid Spills

3-21

1) 0-1 gallons

2) >1-2 gallons

3) >2-10 gallons (at or below this level is unit level clean-up, minor spilled)

4) >10-20 gallons (Must be reported locally, local fire department clean-up; procedures vary depending on local Standing Operating Procedures)

5) >20 gallons (Intermediate to Major Spill, EPA involvement) (FM 20-401).

The functions are based the level of involvement of outside agencies, the amount of clean up required and the category of the spill (i.e. minor, intermediate, major).

3.4.4 Other Mission Impairing Factors (Unit Readiness):

3.4.4.1 Unit Morale

3.4.4.1.1 Days with Restricted Duty
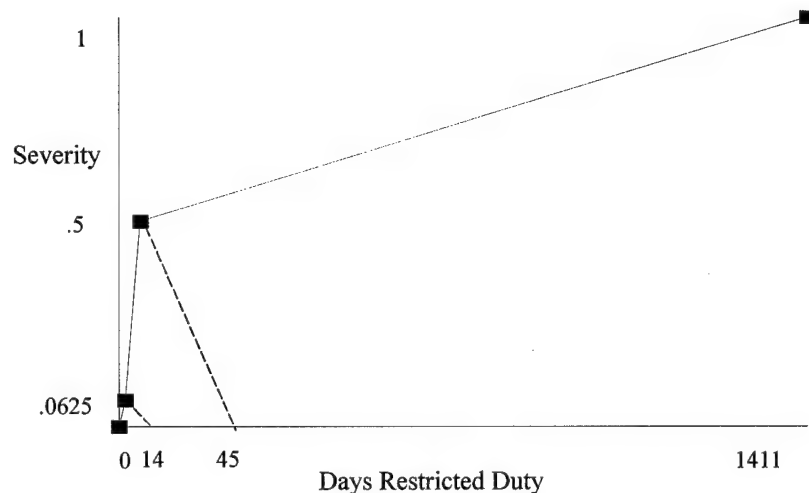
Figure 3-13   SDVF: Restricted Duty

The severity increments in this function were found by determining the impact on

the organization when a soldier has restricted duties. Forty-five days is the mid-value,

this is an aviation specific mid-value. The unit can usually compensate for a person on

3-22

restricted duty for about two weeks. After two weeks the unit begins to suffer, and the severity increment starts to increase. Furthermore, many of the aviator currency requirements are 45 days, after which additional training is necessary and unit readiness begins to decline, therefore the slope of the function begins to increase.

3.4.4.1.2 Lost Workdays

The rationale for the severity increments for the number of days lost is basically the same as the restricted days. For the first two weeks, the unit can absorb the missing soldier's requirements by spreading out his tasks to other service members. After two weeks, unit morale, and therefore readiness begins to suffer.
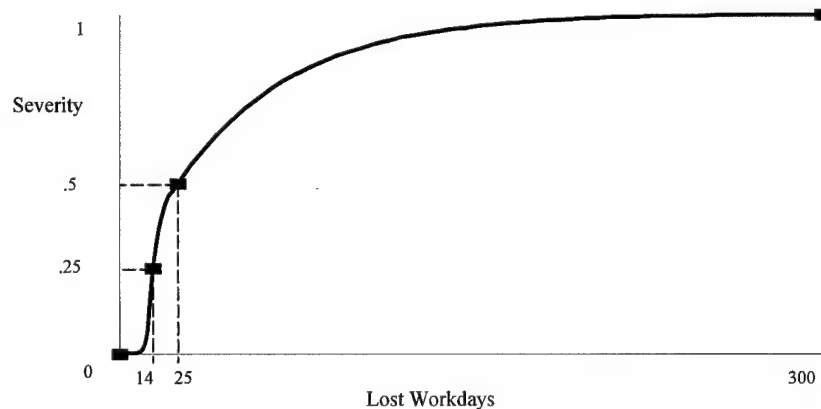
Figure 3-14   SDVF: Lost Workdays

3.4.4.2 Equipment Replacement Time

3.4.4.2.1 Man-Hours to Repair

This severity measure focuses on the impact on maintenance and training. The range extends all the way to ten thousand man-hours. The decision-maker felt more

comfortable translating this range into a more useful scale. Therefore, to determine the severity increments, hours were converted to weeks using the following conversion:

100 man-hours = 1 week * 2 Maintenance Personnel * 50 Hours/week

In these terms, the effect on a unit is as follows:

1 from 0-400 hrs (30 days) the unit maintenance status report is affected, the other aircraft available in the unit should be able to absorb the extra hours they will be required to fly.

2 From 400 hrs - 2400 hrs (6 months) the training of the unit starts to suffer in addition to the maintenance therefore, the slope of the function increases slightly.

3 After 6 months the organization's readiness continues to decline but at a slower rate, the unit will probably use outside aircraft support.
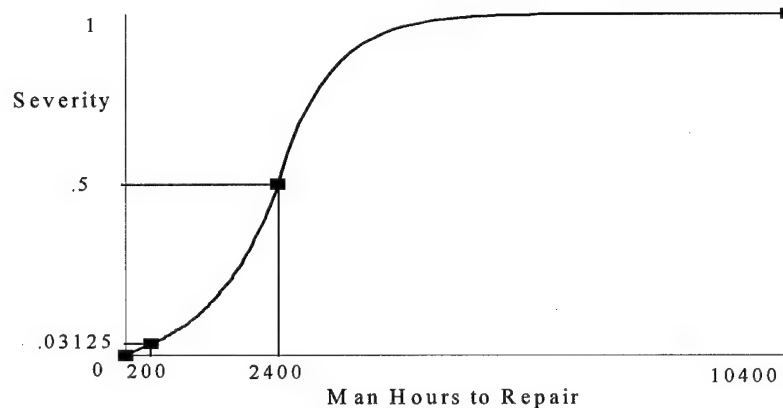
Figure 3-15   SDVF: Man-hours to Repair

3.4.4.2.2   Aircraft Total Loss
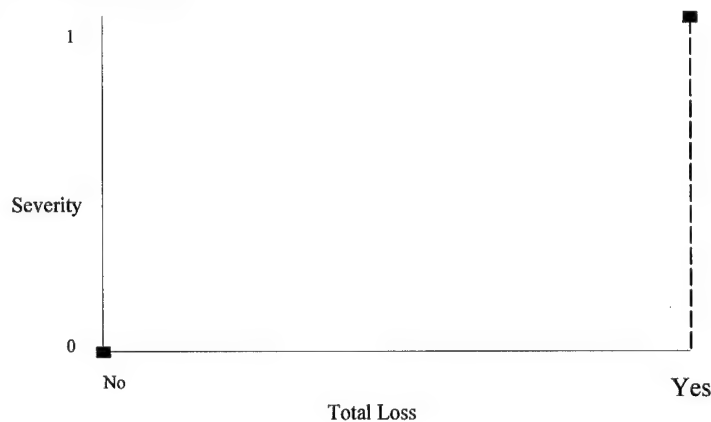
Figure 3-16   SDVF: Total Loss

3-24

The total loss of an aircraft is a binary severity function, either the aircraft s or is not a total loss.

Once all of the sub-criteria and measures were agreed upon and deemed complete (collectively exhaustive), non-redundant (mutually exclusive), independent, understandable and practical in size they can be formally presented as the approved severity hierarchy. Although there may be some additions and follow on research designed to improve some of the evaluation considerations, below is the complete, first-cut severity hierarchy developed with the information currently available.

Figure 3-17   Complete Hierarchy
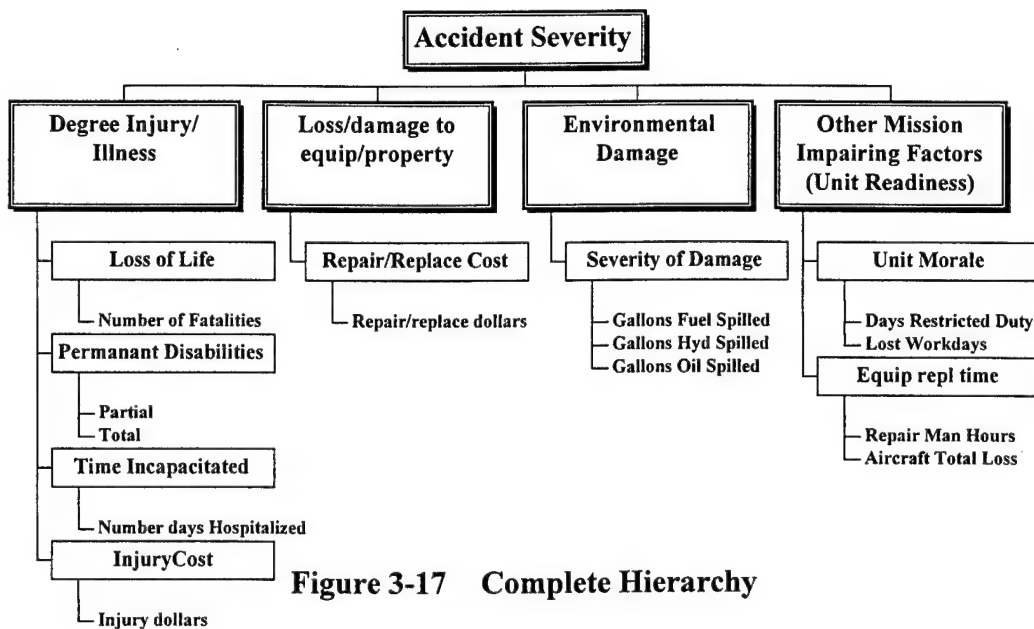
As depicted above, the severity hierarchy consists of four accident severity criteria (the first tier), eight sub-criteria (second boxed tier) and thirteen measures. A "test for importance" (Kirkwood, 1997: p.19) is conducted during the sensitivity analysis. This

test indicates whether variations within the measure or evaluation consideration could change the preferred alternative.

3.5   Assessing Weights

Commonly, the single dimensional severity functions are designed so that each function equals zero for the least preferred level and one for the most preferred level (Kirkwood, 1997:68). This is not the case for the value functions described in this paper. By design, the accident that receives the highest score, when evaluated using this severity hierarchy, is the most severe. Therefore, the most severe, or the least preferred scores, will equal one and the most preferred will score zero.

Given these properties of the single dimensional value functions, "it follows that the weight for an evaluation measure is equal to the increment (or decrement) in value that is received from moving the score from its (most) preferred level to its (least) preferred level" (Kirkwood, 1997:68). This is the basis for determining the decision-maker's weights for each criterion using the swing weight method. The assessment of the weights took place during an interview with COL Warren, Deputy Commander of the Army Safety Center. The weights were assessed in two ways. The first tier was assessed using swing weighting and the second tier and measures were assessed directly.

During the swing weighting procedure a base criterion was established, one by which the other criteria would be compared. This base criterion was the loss or damage to equipment or property. This was the easiest and most logical because the criterion contained only one measure. The first step was to determine the weights of the other three criteria relative to the base criterion. This was done by comparing the value the decision-maker gained as one criterion increased from the lowest possible scores in each

of it's measures to the highest possible scores in each measure to the severity gained from the same swing (low to high) in scores of the base criteria. The relative weights are shown in the Figure 3-18. The notation should be read as follows: The decision maker felt that the severity increase from "degree of injury or illness" was two times as much as the severity increase from "the loss/damage to equipment/property" when their measures were increased from the lowest to the highest scores possible. Each of the relative criteria weights was assessed in the same manner.

It is important to note that the weighting process occurred after the range of each measure was determined. If the decision-maker does not know how the score of each measure may vary prior to determining weights, the weights may be meaningless. For example, if the damage cost across all accidents varied very little, the decision-maker may not want to weight it as high as if the cost varied from 0 to nearly $25 million (as was the case in with this criterion). If the range of the measure is small it may have very little effect on the overall outcome and therefore, should be determined and considered before the weighting procedure.

During the interview with Deputy Commander of the Safety Center it was important to establish preferential independence between the criteria. Developing criteria that are preferentially independent ensures that the level of one criterion does not affect how the decision-maker feels about increases in the other (Kirkwood, 1997: p.238). This was the case with all the criteria established in this research. The relative weights that were assessed by COL Warren for the first tier (Severity Criteria) are shown in Figure 3-18. Once these relative weights were determined, and knowing that the weights must sum to one (Kirkwood, 1997:70), the following relationship was established:

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                    ┌─────────────────────┐
                    │  Accident Severity  │
                    └─────────────────────┘
        ┌───────────────┬──────────┴──────┬───────────────────┐
┌──────────────┐ ┌──────────────┐ ┌──────────────┐ ┌──────────────────┐
│Degree Injury/│ │Loss/damage to│ │Environmental │ │  Other Mission   │
│   Illness    │ │equip/property│ │   Damage     │ │Impairing Factors │
│ Weight = 2x  │ │ Weight = x   │ │ Weight = .5x │ │ (Unit Readiness) │
│              │ │              │ │              │ │  Weight = .75x   │
└──────────────┘ └──────────────┘ └──────────────┘ └──────────────────┘
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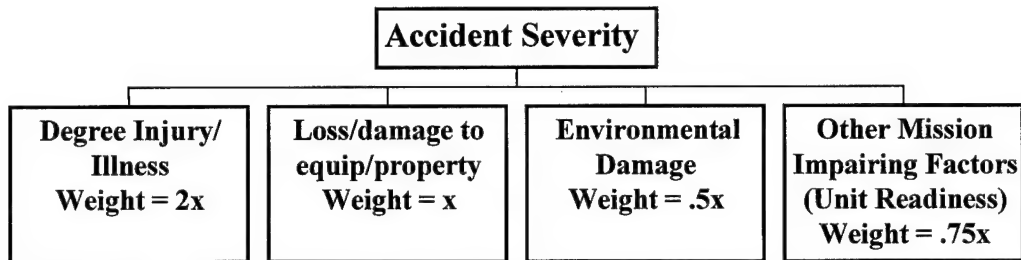
Figure 3-18   Relative Weight Assessment

x = weight of Loss/damage to equip/property

$2x + x + .5x + .75x = 1$

$4.25x = 1$

therefore, $x = .236$

Hence,

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                    │  Accident Severity  │
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        ┌───────────────┬──────────┴──────┬───────────────────┐
┌──────────────┐ ┌──────────────┐ ┌──────────────┐ ┌──────────────────┐
│Degree Injury/│ │Loss/damage to│ │Environmental │ │  Other Mission   │
│   Illness    │ │equip/property│ │   Damage     │ │Impairing Factors │
│ Weight =.470 │ │ Weight =.236 │ │ Weight =.117 │ │ (Unit Readiness) │
│              │ │              │ │              │ │  Weight =.177    │
└──────────────┘ └──────────────┘ └──────────────┘ └──────────────────┘
```
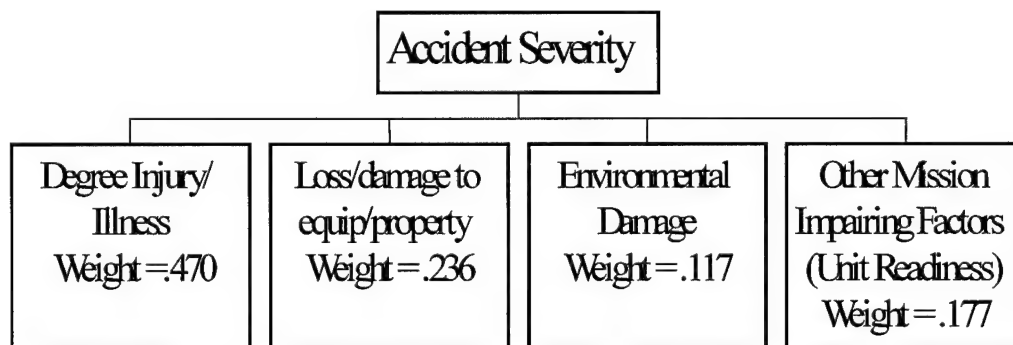
Figure 3-19   First Tier Weights

The weights of the sub-criteria and the measures were assessed using a points

available or a "marble technique" (Kloeber, Lecture 1998). The decision-maker was told

that he had one hundred marbles and had to divide them up between the sub-criteria with respect to their value. Each of the sub-criteria is presented below.

```
                    ┌──────────────┐
                    │   Degree     │
                    │ Injury/Illness│
                    └──────────────┘
    ┌─────────────┬──────┴──────┬──────────────┐
┌────────────┐ ┌────────────┐ ┌────────────────┐ ┌──────────────┐
│ Loss of Life│ │ Permanant  │ │Time Incapacitated│ │ Injury  Cost │
│            │ │Disabilities│ │                │ │              │
│Weight = .75│ │Weight = .06│ │  Weight = .09  │ │ Weight = .1  │
└────────────┘ └────────────┘ └────────────────┘ └──────────────┘
```
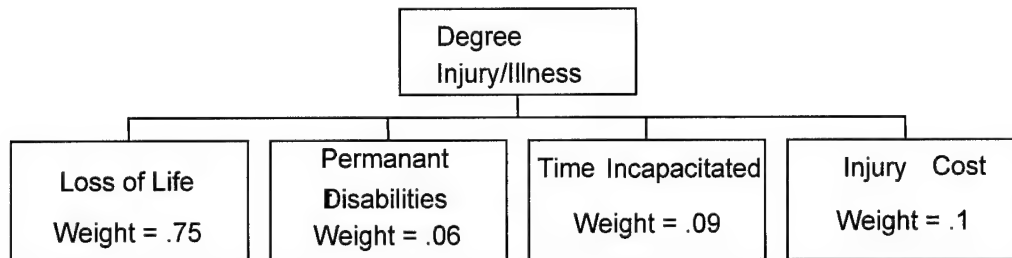
Figure 3-20   Weights: Degree Injury/Illness

```
┌──────────────────┐        ┌──────────────────┐
│  Loss/Damage to  │        │  Environmental   │
│Equipment or Property│      │     Damage       │
└──────────────────┘        └──────────────────┘
        │                            │
┌──────────────────┐        ┌──────────────────┐
│  Repair/Replace  │        │   Severity of    │
│       Cost       │        │     Damage       │
│   Weight = 1.0   │        │   Weight = 1.0   │
└──────────────────┘        └──────────────────┘
```
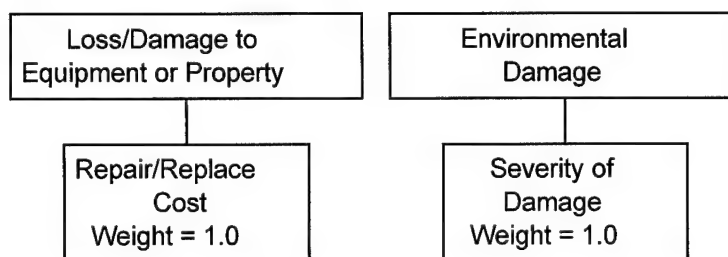
Figure 3-21   Weights: Damage to Property or Environment

```
            ┌──────────────────┐
            │  Other Mission   │
            │ Impairing Factors│
            │ (Unit Readiness) │
            └──────────────────┘
        ┌───────────┴───────────┐
┌──────────────────┐   ┌──────────────────┐
│   Unit Morale    │   │    Equipment     │
│   Weight = .3    │   │ Replacement Time │
│                  │   │   Weight = .7    │
└──────────────────┘   └──────────────────┘
```
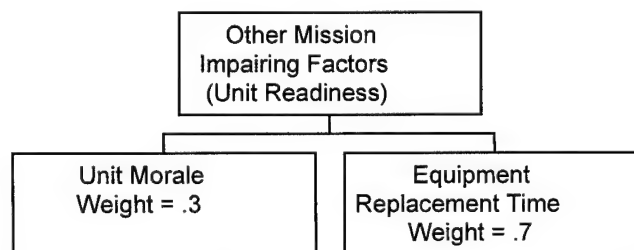
Figure 3-22   Weights: Other Mission Impairing Factors

This results in the following global weights:
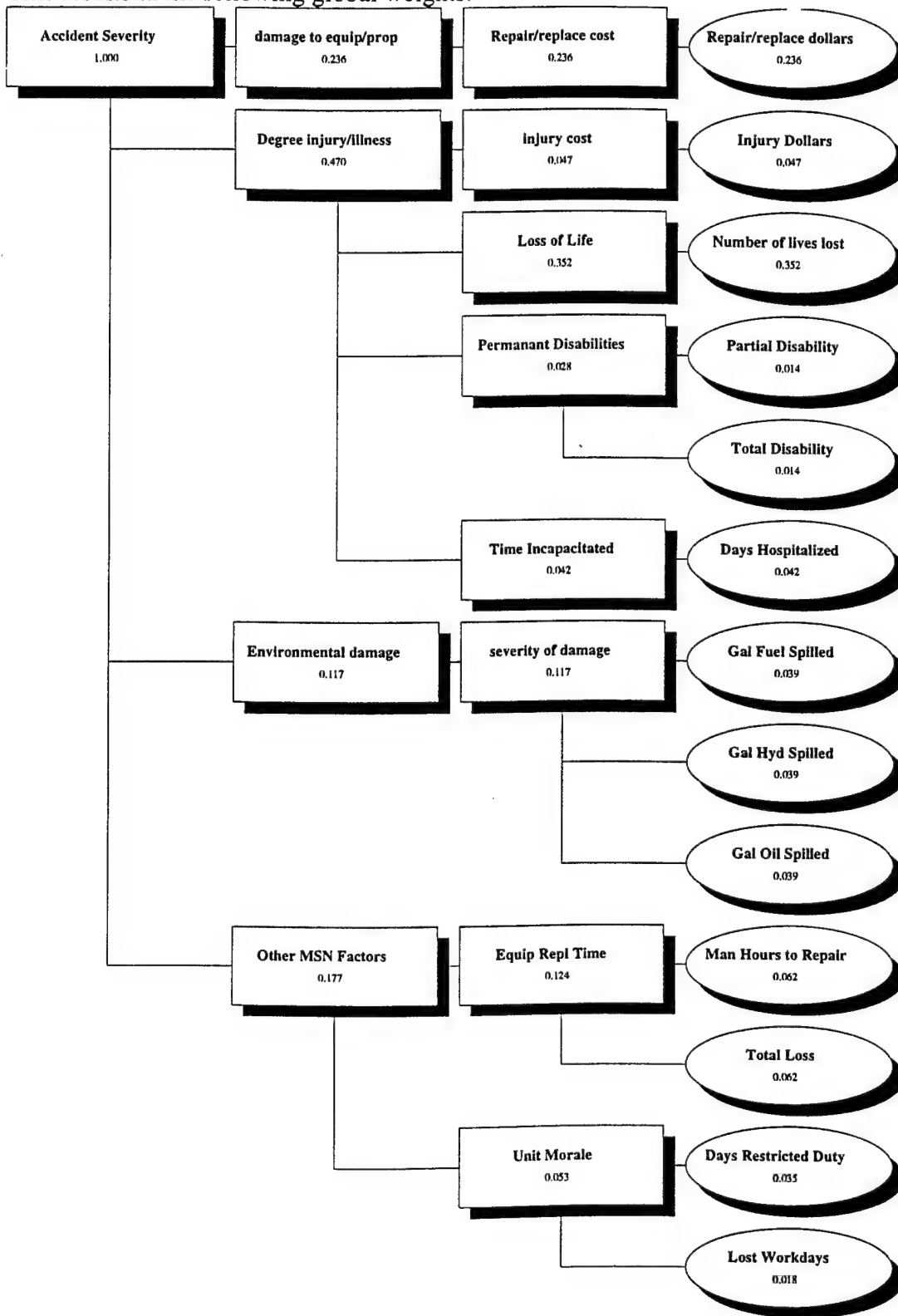
Figure 3-23   Weights: Global

3.6 Converting Value (Severity) to Utility (Severity[U])

Although all of the measures contain uncertainty, there were three measures that the decision-maker felt contained a level of uncertainty that he was uncomfortable with and wished to account for. These measures are: Number of man-hours to repair, damage cost, cost of injury. To account for the uncertainty in these measures the value functions are converted to utility functions. Once this conversion is done, all the scores will be referred to as severity(u) scores. This conversion is accomplished by establishing the decision-maker's risk aversion for the attributes in question. During the interview with ORSA/STATS Division Chief it was established that his risk aversion could be assumed to be constant. Therefore, the severity(u) function can be developed by establishing his risk aversion constant, ρ_i and applying it to the exponential equation below:

$U(x) = ((1 - \exp [-v(x)/ \rho_i])/(1 - \exp(-1/\rho_i))$, for $\rho_i \neq$ Infinity (equation 1)

$U(x) = V(x)$, for $\rho_i =$ Otherwise (Kirkwood, 1997: p.164)

The method that was used to establish the ρ_i was the "lottery question". The idea is to find a specific level that the decision-maker is indifferent about which side of the bet to take method (Clemen, 1996, p. 269). In order to do this the decision-maker was presented with a lottery that involved a 50% chance of receiving either the highest or the lowest score in each measure. The decision-maker then chose a value between those numbers that, if he was guaranteed to receive that value, he would be indifferent to the lottery or the guaranteed value. This value is referred to as the certainty equivalent (CE) or indifference point. The Table 2 represents the lottery questions asked to the decision-maker for each measure and his final certainty equivalent.

3-31

Table 3-1   Lottery Questions

	Man Hours to Repair	Repair/Replace Dollars	Injury Dollars
50% Chance Low	0	0	0
50% Chance High	10,400	24.6 Million	5.8 Million
100% Chance (CE)	2,400	6 Million	1 Million

Because the severity functions are not linear, once the CE is determined its value must be established using the severity functions developed earlier in the chapter. The converted certainty equivalents are given below:

Table 3-2   Certainty Equivalent

Measure	Raw Score (CE)	Severity (CE)
Man-Hours	2,400	.5
Damage Cost	$ 6 Million	.5981
Injury Cost	$ 1 Million	.75

This CE provides a third point to develop an exponential severity(u) curve for each of the evaluation considerations. As discussed in section 3.5, for the functions in this research, the most preferred levels receive a score of zero, the least preferred levels receive a score of one and now a level of indifference has been developed. Given three points, and assuming the decision-maker's risk aversion is constant, an exponential conversion function can be used to convert severity functions into utility functions that account for risk aversion. The equation for the exponential utility function depends on the range of the evaluation measure and a constant. The range for each measure has been converted to

a value between zero and one; the constant is the exponential constant, represented by the Greek letter ρ (rho). When ρ is very large the utility function becomes a straight line and V(x) equals U(x). The shape of the utility functions represents the decision-maker's risk attitude. A concave shape indicates a risk averse decision-maker, a convex shape indicates a risk seeker, and a straight line indicates risk neutrality (Kirkwood, 1997: 138).
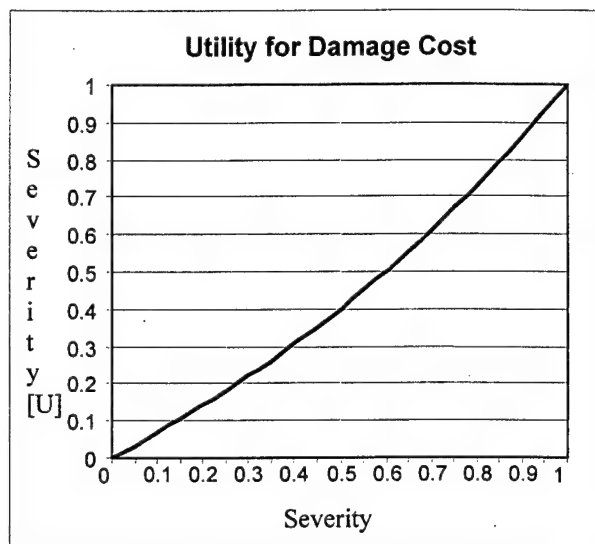
Figure 3-24   Utility: Damage Cost
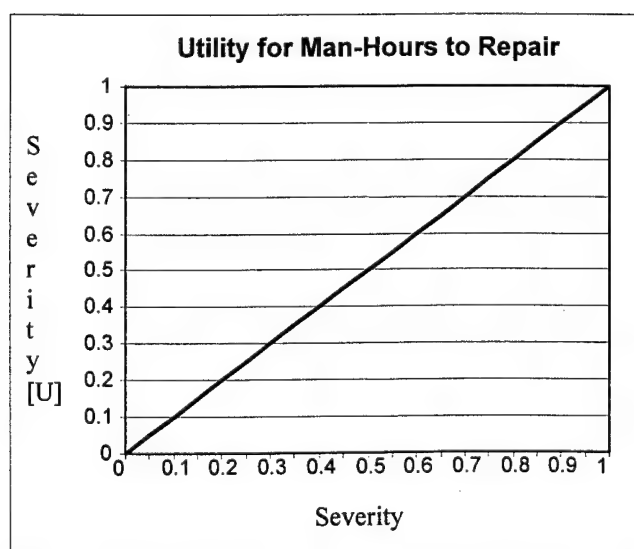
Figure 3-25   Utility: Man-hours to Repair

3-33

Utility for Injury Cost
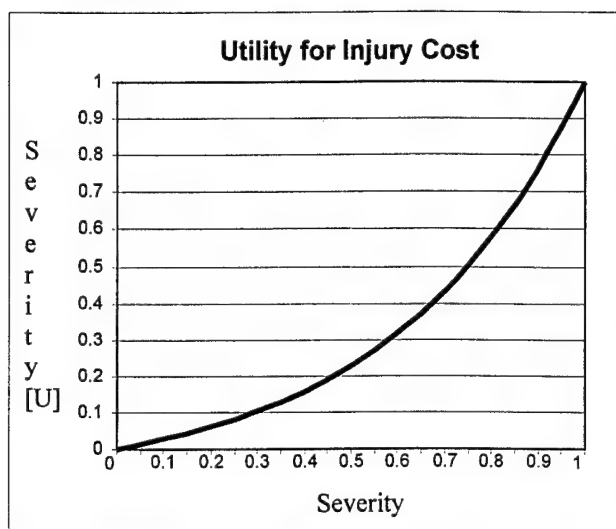
Figure 3-26   Utility: Injury Cost

The severity of each accident can now be established. The rating of the severity of an

accident does not account for the probability of an accident occurring, rather this is a

measure of the expected consequence of an accident should it occur.

3.7   Establishing Accident Risk

To assess the risk of an accident one must account for the severity and the

probability of occurrence (FM 100-14, 1998: p. G-2). The database that was used

contained thirteen hundred and fifty six events, these events were categorized into sixty-

five types of accidents. During an accident sequence more than one type of accident may

occur. For example, an aircraft may experience a loss of hydraulic power at a hover

which may lead to a tree strike. In this case, two types of accidents occurred.   The

accident investigation team determines the primary, secondary and tertiary events in the

accident sequence. Only the primary event was used for this study. Therefore, the

probability of occurrence of an accident is given by the equation below.

$$P(\text{Accident}_i) = \frac{\text{Total Number of Accident}_i}{\text{Total Number of Army Rotary Wing Accidents}}$$

This research assumes that an accident has occurred, therefore the probabilities that were used were conditional probabilities. These conditional probabilities are listed in Appendix E.

3.8 Hazard to Accident Association

Individual hazards can result in various types of accidents. In order to establish the severity of a hazard$_i$, the severity of all the accidents that were a result of hazard$_i$ must be summed up in the following manner.

$$\text{Severity of Hazard}_i = \sum_{j-1}^{94} P(\text{Accident}_j \mid \text{Hazard}_i) * \text{Severity (Accident}_j)$$

To determine the conditional probability that Accident$_i$ occurred given that Hazard$_j$ occurred, $P(\text{Accident}_i \mid \text{Hazard}_j)$, the database had to be manipulated. A primary hazard was associated with each accident. Once the hazards and accidents were organized into a matrix format each conditional probability could be accessed. The law of total probability was used to confirm that these probabilities were correct. By viewing the sample space, S (Hazard$_j$), as a union of mutually exclusive subsets the law of total probability can be used:

$S = B_1 \cup B_2 \cup ... \cup B_k$ where $P(B_j) > 0$, for $i = 1,2,...,k$ and $B_i \cap B_j = \emptyset$ for $i \neq j$.
Then for any event A

$$P(A) = \sum_{j=1}^{k} P(B_j)P(A|B_j).$$ (Wackerly, 1995; p.61)

Where,

$P(A|B_i) = P(Accident_i \mid Hazard_j)$

$P(B_i) = P(Hazard_j)$ (directly available from the database)

$P(A) = P(Accident_i)$ (directly available from the database)

Example,

$$P(Accident_{94}) = \sum_{j=1}^{24} P(Accident_{94} \mid Hazard_j)P(Hazard_j) = (.015152)(.097345) = .00147497$$

This number agrees with the actual probability of Accident (94)

Once these probabilities were confirmed the severity of each hazard could easily be computed. Utilizing the definition of risk as applied to hazards:

Hazard Risk = Hazard Severity * P(Hazard) (FM 100-14, 1998; 1-1)

A score for the overall risk of each hazard was calculated.

3.9   Summary

The following diagram summarizes the methodology followed throughout this effort. Furthermore, it was used throughout the research process to update key stakeholders on their roles and responsibilities and the output that they would receive from.

Chapter Four presents the results of this methodology and an analysis of the results to include a sensitivity analysis of the hazard severity criteria.
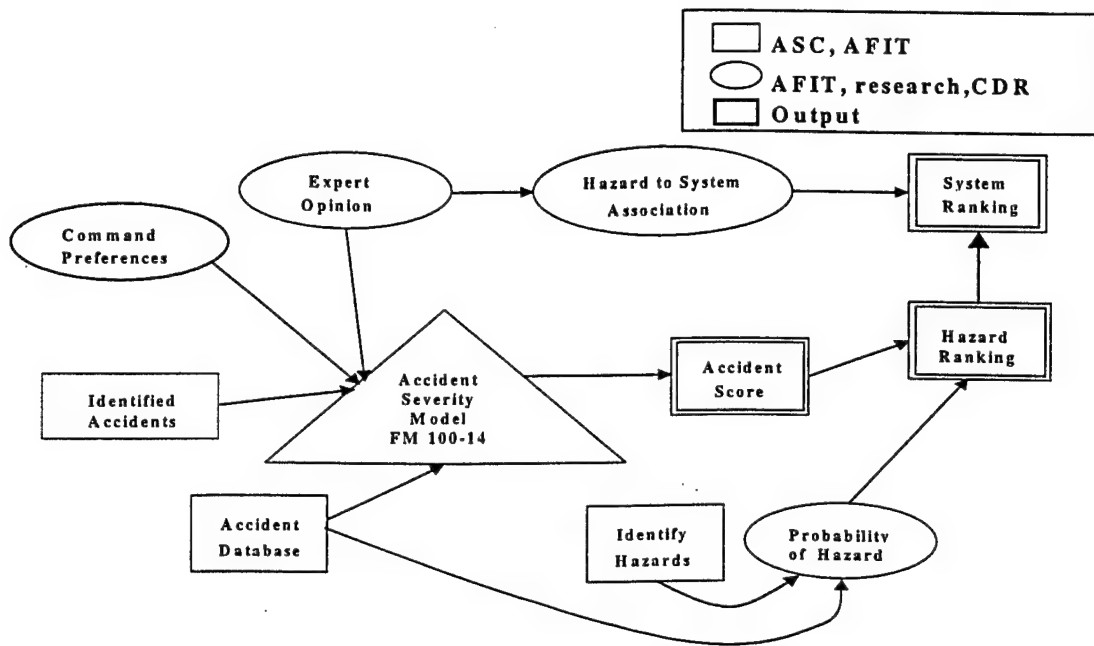
Figure 3-27   Methodology Framework

4 Results and Analysis

4.1 Introduction

This chapter presents the results from the analysis of the deterministic and probabilistic model that was developed in Chapter Three. There were sixty-five categories of accidents analyzed using the value-focused model. The total scores and scores categorized by criteria are presented. The deterministic view indicated the pure severity of accidents and hazards. The probabilistic portion focuses on the drastic change in the ranking of accidents and hazards when the probability of occurrence is accounted for. Finally, the sensitivity of each of the top-level criteria in the value hierarchy is analyzed for its effect on both accidents and hazard severity.

4.2 Accident Severity

Each of the thirteen hundred and fifty six accidents was categorized into one of sixty-five types of accidents. These categories are defined by AR 385-40 and presented in Appendix A. There are two approaches for determining the severity of each accident. If all of the severity functions are linear, the severity can be assessed by taking the average raw scores in each category then determining the value of that score. The severity functions in this study were not linear. They were a combination of piecewise linear and exponential functions and therefore, averages could not be used. Each individual occurrence of an accident had to be scored separately. The expected value for the severity of each accident was determined by calculating the severity for each single dimensional severity function then multiplying the expected values by their corresponding weights and finally summing the results (Kirkwood, 1997: 158). Hence,

the total severity of each accident data point was calculated. This became the individual accident severity score (presented in Appendix F). All severities in the same accident category were then averaged giving the expected value. A graphic representation of the span of the severity scores and a table of results in descending order are presented below.
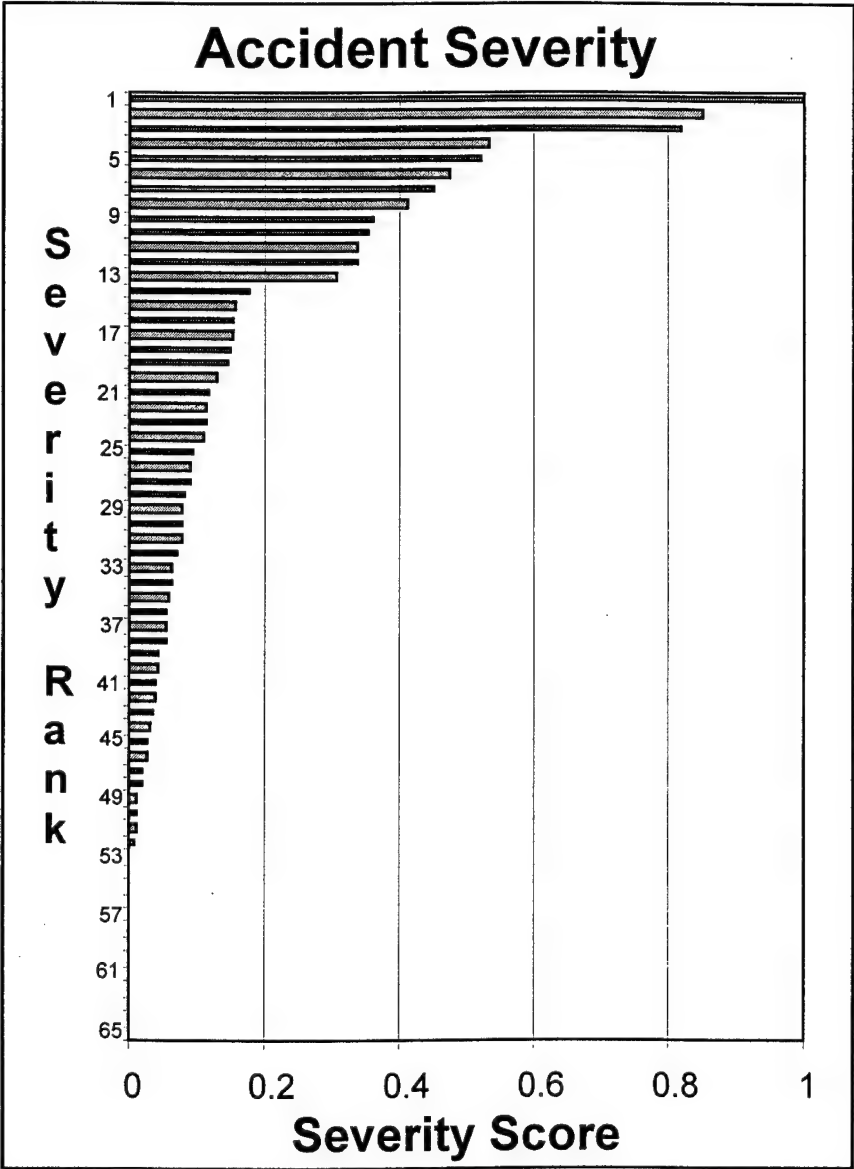
Figure 4-1   Accident Severity Chart

Table 4-1   Accident Severity Scores

Rank	Definition	Normalized Score	Actual Score
1	SPIN/STALL	1.0000	0.3835
2	ELECTRICAL SYSTEM	0.8491	0.3256
3	INFLIGHT BREAKUP	0.8214	0.3150
4	INFLIGHT BREAKUP-MAST BUMPING	0.5341	0.2048
5	COLLISION WITH GROUND/WATER	0.5227	0.2004
6	ABANDONED AIRCRAFT	0.4752	0.1822
7	FIRE AND/OR EXPLOSION IN THE AIR	0.4492	0.1723
8	MULTIPLE AIRCRAFT EVENT	0.4100	0.1572
9	UNDERSHOOT	0.3601	0.1381
10	WIRE STRIKE	0.3523	0.1351
11	EXCESSIVE YAW/SPIN	0.3363	0.1290
12	BROWNOUT	0.3363	0.1290
13	FUEL STARVATION	0.3044	0.1167
14	MOC	0.1777	0.0681
15	ROTOR/PROP WASH	0.1572	0.0603
16	ENGINE FAILURE/OVERSPEED/OVERTEMP	0.1522	0.0584
17	FIRE AND/OR EXPLOSION ON THE GROUND	0.1520	0.0583
18	DITCHING	0.1491	0.0572
19	AIR TO GROUND COLLISION	0.1457	0.0559
20	FUEL EXHAUSTION	0.1276	0.0489
21	REFUELING OPERATIONS	0.1187	0.0455
22	POWER TRAIN	0.1129	0.0433
23	GROUND LOOP/SWERVE	0.1127	0.0432
24	AIRFRAME	0.1090	0.0418
25	INSTRUMENTS	0.0946	0.0363
26	PRECAUTIONARY LANDING	0.0921	0.0353
27	FORCED LANDING	0.0910	0.0349
28	WEAPONS RELATED	0.0812	0.0311
29	TREE STRIKE	0.0804	0.0308
30	ENGINE OVERTORQUE/OVERLOAD	0.0786	0.0301
31	OVERSTRESS	0.0769	0.0295
32	PERSONNEL HANDLING EVENT	0.0710	0.0272
33	HUMAN FACTOR EVENT	0.0617	0.0237

Rank	Definition	Normalized Score	Actual Score
34	FLIGHT RELATED	0.0614	0.0235
35	HELOCASTING	0.0597	0.0229
36	OTHER COLLISION	0.0563	0.0216
37	OBJECT STRIKE	0.0557	0.0214
38	WHEELS UP LANDING	0.0556	0.0213
39	EQUIPMENT LOSS/DROPPED OBJECT	0.0447	0.0172
40	AIRCRAFT GROUND ACCIDENT	0.0436	0.0167
41	ROTOR/PROPELLERS	0.0406	0.0156
42	HARD LANDING	0.0385	0.0148
43	DRIVE TRAIN (EXCEPT XMSN)	0.0346	0.0133
44	MISSING AIRCRAFT	0.0310	0.0119
45	PNEUMATIC SYSTEM	0.0291	0.0112
46	TIEDOWN STRIKE	0.0265	0.0102
47	ANTENNA STRIKE	0.0193	0.0074
48	TRANSMISSION FAILURE	0.0184	0.0071
49	CARGO EVENT	0.0128	0.0049
50	LANDING GEAR COLLAPSE/RETRACTION	0.0119	0.0046
51	LIGHTNING STRIKE	0.0105	0.0040
52	ANIMAL STRIKE	0.0059	0.0023
53	SPIKE KNOCK	0.0049	0.0019
54	ENGINE OVERSPEED/OVERTEMP	0.0036	0.0014
55	ROTOR OVERSPEED	0.0017	0.0007
56	UTILITY/ENVIROMENTAL CONTROL SYSTEM	0.0011	0.0004
57	ABORTED TAKEOFF	0.0009	0.0004
58	BIRD STRIKE	0.0006	0.0002
59	SINGLE ENG LANDING	0.0006	0.0002
60	CONTRACTOR AIRCRAFT ACCIDENT	0.0005	0.0002
61	TAIL BOOM STRIKE	0.0003	0.0001
62	EXTERNAL STORES EVENT	0.0002	0.0001
63	FLIGHT CONTROL	0.0000	0.0000
64	STRUCTURAL ICING	0.0000	0.0000
65	MAST BUMPING	0.0000	0.0000

The scores above represent the expected severity of an accident, should that accident occur. A description of each accident is provided in Appendix A. Note from Figure 1 and Table 1 that there is a large drop off in the severity score after the thirteenth ranked accident. The goal of this study is to determine the top ten hazards. Although the rankings will change when the probabilities of occurrence are applied, we will concentrate on the top thirteen accidents at this point to identify trends. The figure below depicts the contribution of each fundamental objective for each of the top thirteen accidents.
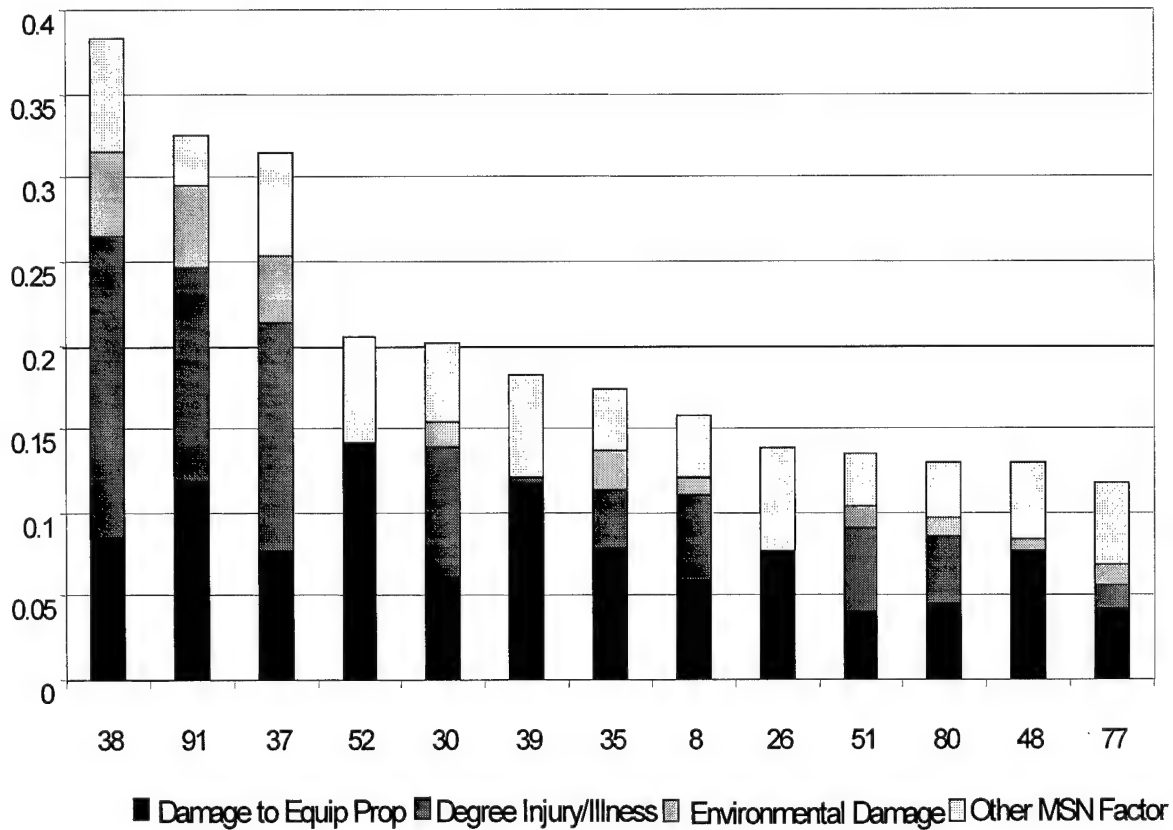
Figure 4-2   Accident Severity Composition

Table 4-2   Accident Severity (Top 13)

Rank	Description
1	SPIN/STALL
2	ELECTRICAL SYSTEM
3	INFLIGHT BREAKUP
4	INFLIGHT BREAKUP-MAST BUMPING
5	COLLISION WITH GROUND/WATER
6	ABANDONED AIRCRAFT
7	FIRE AND/OR EXPLOSION IN THE AIR
8	MULTIPLE AIRCRAFT EVENT
9	UNDERSHOOT
10	WIRE STRIKE
11	EXCESSIVE YAW/SPIN
12	BROWNOUT
13	FUEL STARVATION

Examining the breakdown of the scores, one will note the lack of contribution that the environment criterion lends to the ranking of accident severity. As more and different data collection procedures are done in the area of the environment, this may increase. Currently, fluid spills are the only measures used to determine the severity of environmental damage, as the measures increase the decision-maker may increase the weight of this criterion. The other three categories seem to contribute consistently throughout the range of accidents. There was initial concern from the Safety Center that there was a high degree of correlation between the level of equipment/property damage and the degree of injury. The results do not suggest that this is true. Figure 4-3 is a plot of degree of injury/illness versus damage to equipment or property. The resulting linear regression is a weak regression and indicates a lack of correlation between the two criteria.
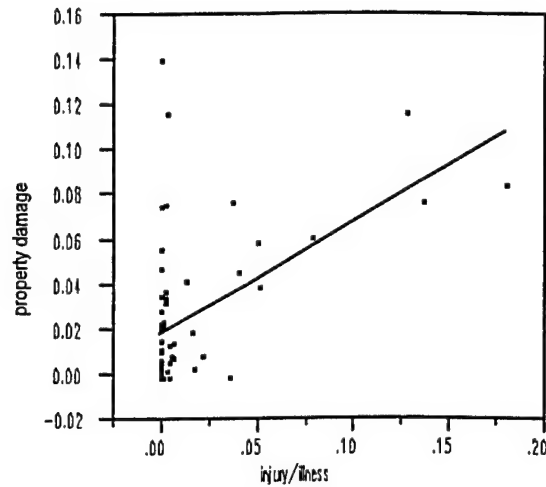
Figure 4-3   Correlation Regression

Property Damage Vs Injury/Illness

RSquare	0.266553
RSquare Adj	0.254911
Observations	65

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Ratio
Model	1	0.01825969	0.018260	**22.8958**
Error	63	0.05024324	0.000798	**Prob>F**
C Total	64	0.06850292		**<.0001**

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	0.0181226	0.003761	**4.82**	**<.0001**
injury/illness	0.5005116	0.104601	**4.78**	**<.0001**

The R-Square value is low, the F- value is large along with the t-value. All these factors suggest that these two measures are probabilistically independent. The lack of correlation can also be seen by referring to Figure 4-2. The severity of accidents 52, 26, 39 and 48 (In-flight Breakup-Mast Bumping, Undershoot, Abandoned Aircraft and Brownout) are largely due to property damage and the degree of injury contributes almost

nothing while the severity of accidents 38 and 37 (Spin/Stall and In-flight Breakup) are the exact opposite.

4.2.1 Degree of Injury/Illness Sensitivity

Hazard severity is a linear combination of accident severities. Therefore, to conduct a quality sensitivity analysis for overall hazard severity it is necessary to conduct a sensitivity analysis on accident severity. This analysis will focus on fluctuations in the first tier criteria weights that were assigned by the decision-maker. The variation in accident severity was examined over the full range of possible weights (0-1) for each of the criteria; these results can be seen in Appendix H. The more important results are shown below. The weights for each criterion were varied throughout the feasible range. These feasible ranges of weights are the absolute minimum and maximum weights that the decision-maker would assign to each of the criteria. For example, although the degree of injury/illness was given a weight of .47 the decision-maker stated that he would never assign that criterion a weight of below .30 but he would also never go above .60. Therefore the feasible range for the degree of injury/illness is .30 to .60. As the weight of one measure decreases the others must increase to keep the same relative ratio between the other weights. As shown in the graph below, the overall severity score is relatively insensitive to fluctuations, within the feasible range, of the weight of degree of injury or illness.

Injury Weight Varied (.3-.6)

Accident Rank
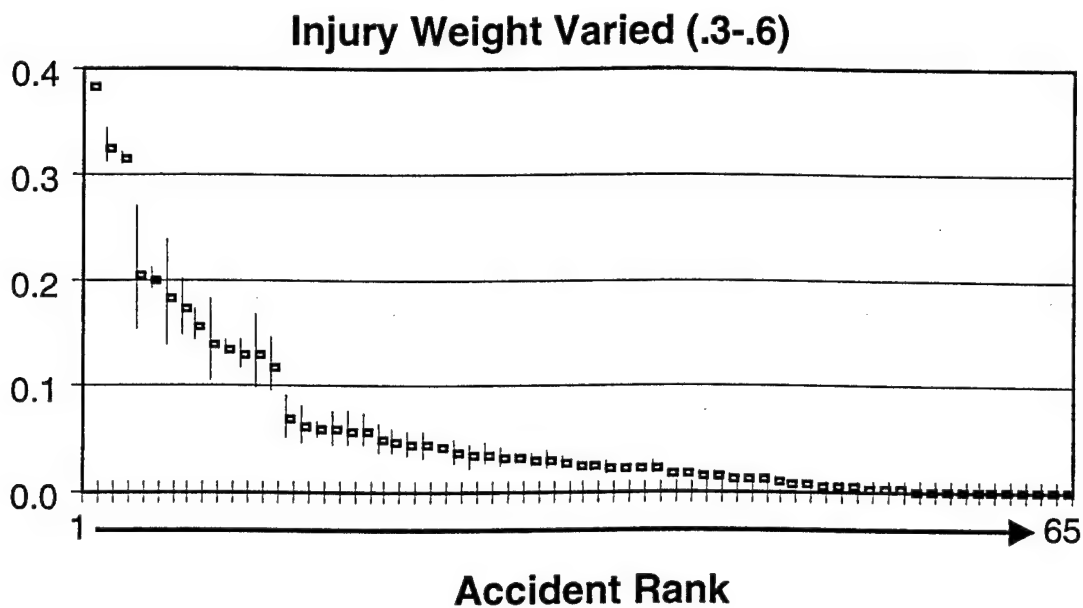
Figure 4-4   Accident Sensitivity: Injury Weight

The minimum points in the range occur when the weight of this criterion is .3. At the highest points the weight is .6 and the mark in the middle is the severity value at the current weights. As can be seen by the chart in Figure 4-4, the top thirteen accidents remain the top thirteen. As the weight is increased or decreased from the original .47, some variations occur in the in the order of the top thirteen, but they remain clearly above the remainder of the accidents.

If an accident is sensitive to fluctuations in weight of a criterion this indicates that the severity of that accident is skewed heavily towards one or more criteria. For example, accidents 52, 39, 26 and 48 have the largest range in severity score when injury weight is varied. As depicted in Figure 4-2, these accidents are primarily composed of two criteria, damage to equipment/property and other mission factors. As the criterion weight is varied, the remaining criteria increase or decrease in order to maintain their initial weight ratio. This insight can be utilized when developing controls to reduce

accident severity. Controls directed towards the two criteria discussed above can drastically decrease the severity of those same accidents. An accident that remains constant throughout the weight fluctuations has an evenly distributed composition and may require a series of controls to significantly reduce its severity. The same four accidents react the same to fluctuations as each of the criterion weight is varied. These types of accidents will provide a large amount of reduction with controls focused on one area and may provide the "best bang for your buck".

4.2.2 Property/Equipment Damage Sensitivity

The weight of property/equipment damage was varied from 10 to 30, with the
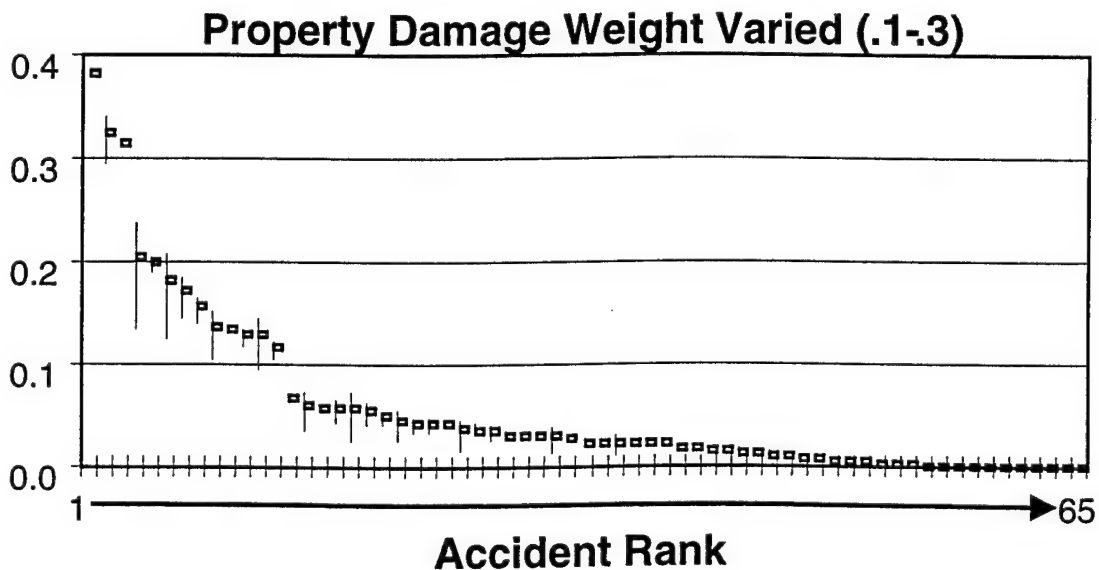
Figure 4-5   Accident Sensitivity: Property Damage Weight

initial weight of .26. Once again we can see a drastic drop in the severity range after the thirteenth ranked accident. The same generalization can be made for fluctuations in the

weight of property damage. The top thirteen continue to remain the top thirteen, this indicates that these accidents are severe in each category.

4.2.3 Environmental Weight Sensitivity

The original weight for the environment was .117. The feasible range was determined to be 0 to .30. There is very little fluctuation in the overall severity within the feasible range of the weight for the environmental criterion.
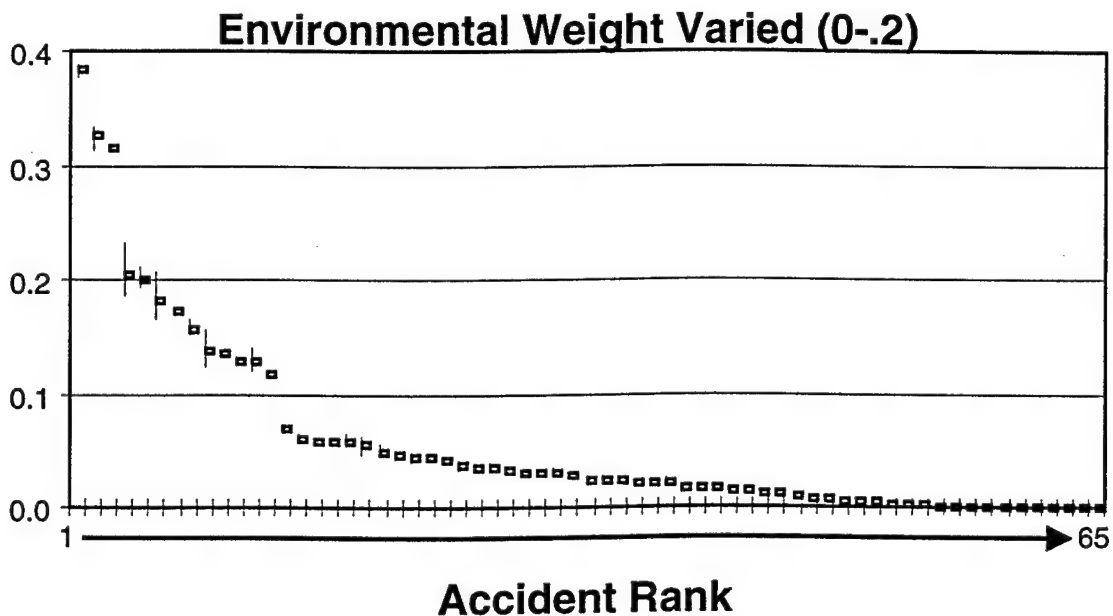
Figure 4-6   Accident Sensitivity: Environmental Weight

4.2.4 Other Mission Factors Sensitivity

The initial weight of other mission factors, which concentrates on unit readiness, was .177. The weight was varied from .10 to .30, the results are shown in Figure 4-7. Once again, the overall severity of each accident is relatively insensitive to minor fluctuations in the weight of other mission factors. Although the ranks of different accidents may have minor changes, the sensitivity analysis presented above indicates a

stable rating system of accident severity. The following sections will develop the accident risk ranking and hazard severity and risk.

Mission Factors Weight Varied (.1-.3)
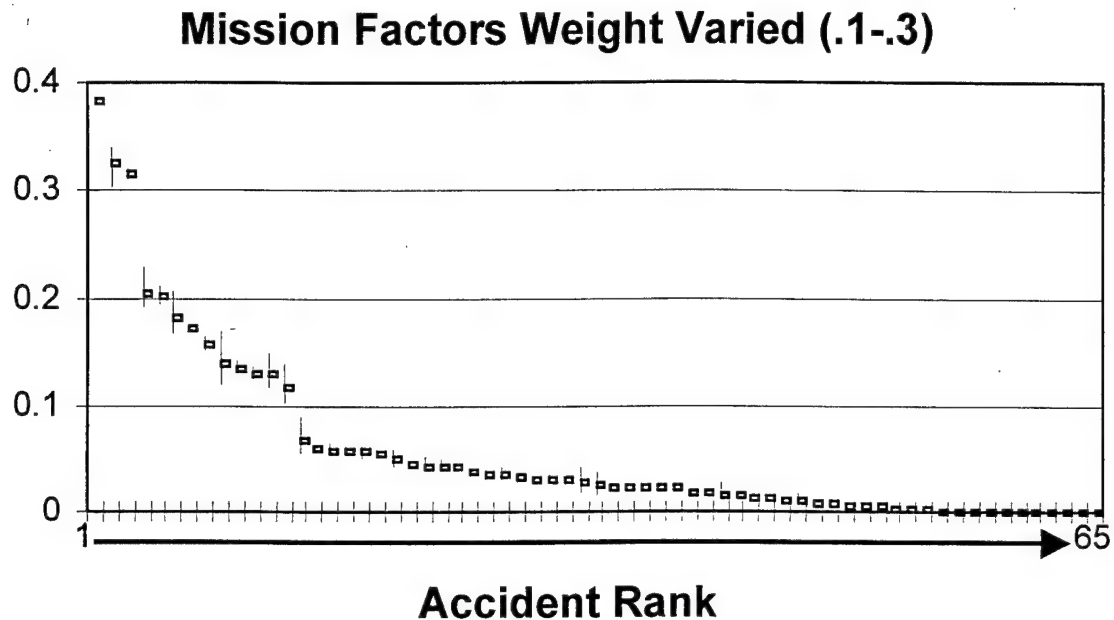
Accident Rank

Figure 4-7   Accident Sensitivity: Mission Factors Weight

4.3   Accident Risk Ranking

After applying the probability of a specific accident occurring there is a drastic change in the top accidents. Table 6 represents the normalized risk score of the top twenty accidents. The scores for the risk assessment have been normalized, by dividing each risk score by the largest risk score, in order to maintain a consistent scale from zero to one. Upon comparing accident severity and accident risk a few observations can be made. Only 5 of the top ten accidents remained in the top ten once the probabilities were applied. Furthermore, only 11 of the top 20 remained in the top 20 and no accident maintained its initial ranking.

Table 4-3   Accident Risk Ranking

Event	Risk	Risk Rank	Severity Rank
COLLISION WITH GROUND/WATER	1.0000	1	5
ENGINE FAILURE/OVERSPEED/OTEMP	0.3286	2	16
WIRE STRIKE	0.2968	3	10
TREE STRIKE	0.2567	4	29
MULTIPLE AIRCRAFT EVENT	0.2519	5	8
EXCESSIVE YAW/SPIN	0.1712	6	11
FUEL STARVATION	0.1175	7	13
SPIN/STALL	0.0878	8	1
ENGINE OVERTORQUE/OVERLOAD	0.0869	9	30
INFLIGHT BREAKUP	0.0865	10	3
FLIGHT RELATED	0.0851	11	34
OTHER COLLISION	0.0702	12	36
AIRCRAFT GROUND ACCIDENT	0.0681	13	40
FIRE AND/OR EXPLOSION IN THE AIR	0.0552	14	7
HARD LANDING	0.0507	15	42
EQUIPMENT LOSS/DROPPED OBJECT	0.0471	16	39
OBJECT STRIKE	0.0420	17	37
MOC	0.0405	18	14
ELECTRICAL SYSTEM	0.0298	19	2
BROWNOUT	0.0295	20	12

This indicates that although an accident may be severe, it may not be considered as great

a risk to our soldiers if it occurs with a low probability. For example, an electrical system

malfunction was clearly a severe accident (ranked number two in severity) yet over the

last 11 years, given that an accident occurred, this type of malfunction occurred with a

low probability of .001475. The ranking of this accident dropped drastically when

probability was applied to determine the risk. Whereas the severity of a tree strike was

ranked 29th out of 65 types of accidents yet, because tree strikes occurred with a

probability of .134, it moved up to number four in the risk ranking. While all threats to

our troops are important, a combination of severity and probability can help guide the

allocation of limited resources to attain the greatest effect. The results presented in this section stress the concept that risk is a combination of the severity of the consequences and probability of occurrence. The relationship of each accident's severity versus the probability is summarized in the following figure.

Accident Severity Vs Probability
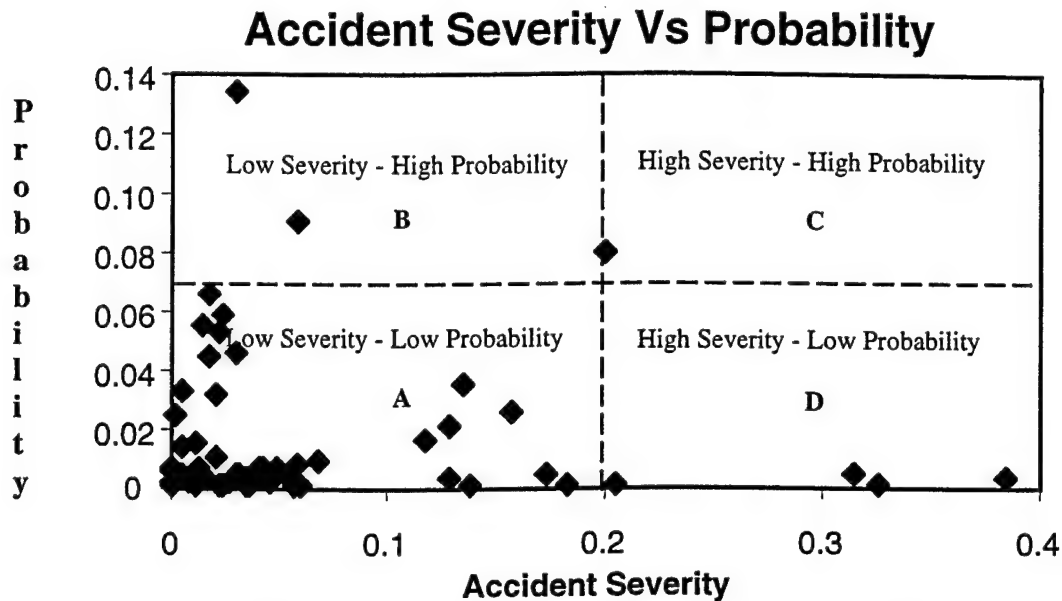
Figure 4-8   Accident Severity versus Probability

The graph above is divided into four categories (A-D). Most of the accidents fall into the low-low category. The one accident that falls into the high-high category is Collision with Ground/Water, which is ranked number one in accident risk. This type of analysis can be used to direct efforts to reduce the risk of a certain accident, by either reducing the severity or the probability of occurrence.

4.4   Hazard Severity Ranking

Accident and risk have now been established. The remainder of this chapter focuses on hazard severity and risk. The calculations used to determine the severity and risk of a hazard do not directly include accident risk. Instead, each occurrence of an

accident is associated with the hazards that caused the accident. This results in a conditional probability that is necessary for severity calculations, this probability is P(Accident$_i$ | Hazard$_j$ contributed to an accident). Appendix E contains the probabilities and actual calculations that were used to establish the severity of each specific hazard. A discussion of the methodology used to determine the hazard severity is also contained in Section 3.8. The accident severities and associated conditional probabilities were combined using the following relationship:

$$\text{Expected Severity of Hazard}_i = \sum_{j=1}^{94} P(\text{Accident}_j \mid \text{Hazard}_i) * \text{Severity (Accident}_j)$$

A graphic representation of the span of the expected hazard severity scores is shown in Figure 4-8 followed by a table of the results in descending order from the most severe to the least. In Table Four, the left column refers to system inadequacies as defined by AR 385-40. The system inadequacies represent hazards throughout this research effort, they are defined in numerical order in Appendix A. One of the system inadequacies described in Appendix A has been ignored through this paper. System Inadequacy 97 is insufficient information. This does not apply to the pilots flying the aircraft; this inadequacy comes from an accident investigation that concludes that there was insufficient information to determine the hazard that caused the accident. Figure 4-9 represents the percentage composition of each of the top ten hazards. This chart does not account for the probability of a hazard contributing to an accident, merely the severity of the consequences if it is a contributing factor.

Expected Hazard Severity

Motivation/Mood
Effects of Alcohol, Drugs, Illness
Inadequate Composure
Inadequate/Improper Supervision by Cdr
Overconfidence/Complacency
Fatigue
Inadequate Supervision by Higher
Environmental Conditions
Inadequate QC ,Manuf, Assembly
Inadequate Supervision/Staff Off
Inadequate Unit Training
Inadequate Experience
Improper Supervision Direct Supervisor
Inadequate Attention
Inadequate School Training
Material Improperly Designed
Inadequate Facilities/Services
Inadequate Written Procedure
Inadequate Maintenance Inspection
Habit Interference
Insufficient Number/type personnel
Lack of Confidence

0   0.01   0.02   0.03   0.04   0.05   0.06   0.07   0.08

Injury Severity   Property Severity   ENV Severity   OMF Severity

Figure 9   Expected Hazard Severity

4-16

Table 4-4   Expected Hazard Scores

Hazard	Definition	Severity
SI18	Inadequate Motivation/Mood	0.079702329
SI20	Effects of Alcohol, Drugs, Illness	0.078789787
SI15	Inadequate Composure	0.077007882
SI03	Inadequate/Improper Supervision by Unit Com	0.073625832
SI16	Overconfidence/Complacency	0.067180833
SI19	Fatigue	0.063986499
SI01	Inadequate/Improper Supervision by Higher	0.058769655
SI21	Environmental Conditions	0.058752913
SI13	Inadequate QC,Manuf, Assembly	0.056988794
SI02	Inadequate/Improper Supervision by Staff Off	0.056283277
SI06	Inadequate Unit Training	0.056052383
SI07	Inadequate Experience	0.054184297
SI04	Inadequate/Improper Supervision by Dir Supervisor	0.05118832
SI99	Inadequate Attention	0.050760243
SI05	Inadequate School Training	0.050032107
SI11	Material Improperly Designed	0.049974531
SI10	Inadequate Facilities/Services	0.049040987
SI09	Inadequate Written Procedure	0.047979915
SI14	Inadequate Maintenance Inspection	0.046927051
SI08	Habit Interference	0.043605339
SI12	Insufficient Number/type personnel	0.042368548
SI17	Lack of Confidence	0.038541656

Although when dealing with accidents, severity may be reduced significantly by focusing on one criterion, any control designed to significantly reduce the severity of a hazard may need to address all of the criteria. Because the severity of each hazard is a linear combination of all accident severities, the severity of individual accidents becomes convoluted in the overall hazard severity. The following table indicates the number of accidents that were involved in each of the ten most severe hazards.

Table 4-5   Accident/Hazard Relationship

Hazard	Definition	# Accidents
SI18	Inadequate Motivation/Mood	28
SI20	Effects of Alcohol, Drugs, Illness	7
SI15	Inadequate Composure	17
SI03	Inadequate/Improper Supervision by Unit Com	20
SI16	Overconfidence/Complacency	38
SI19	Fatigue	21
SI01	Inadequate/Improper Supervision by Higher	11
SI21	Environmental Conditions	34
SI13	Inadequate QC,Manuf, Assembly	22
SI02	Inadequate/Improper Supervision by Staff Off	10

Due to the wide range of accidents involved in each hazard, controls designed to reduce the severity of specific accidents may have little effect on a specific hazard's severity. No single accident occurred in all ten of the most severe hazards and only three accidents were involved in nine of the ten. These accidents are:

1) Collision with Ground/Water

2) Other Collision

3) Tree Strike

If a commonality could be identified between these types of accidents or other groups that occur often throughout the most severe hazards controls could be developed that might reduce severity in groups of hazards, not just one. Section 4.5 applies the probability of occurrence to the severities listed above. A different set of controls may be developed to reduce the probability of occurrence of hazard instead of the severity. The effectiveness of this type of control is discussed in Section 4.5.

4.4.1 Sensitivity of Criteria Weights on Hazard Severity

As seen in Section 4.2, as the weight of the criteria is varied some of the accidents increase in severity while some decrease. An individual hazard severity is a linear combination of all of the possible accidents that could have been caused by that hazard. The Figure 4-10 represents the range of hazard scores due to varying the weight of the degree of injury/illness. The X-axis contains the hazards ranked from most severe to least severe and the y-axis represents the severity of each hazard feasible range, the highest scores contain the minimum weight. The weight was only varied inside the feasible range for each criterion.
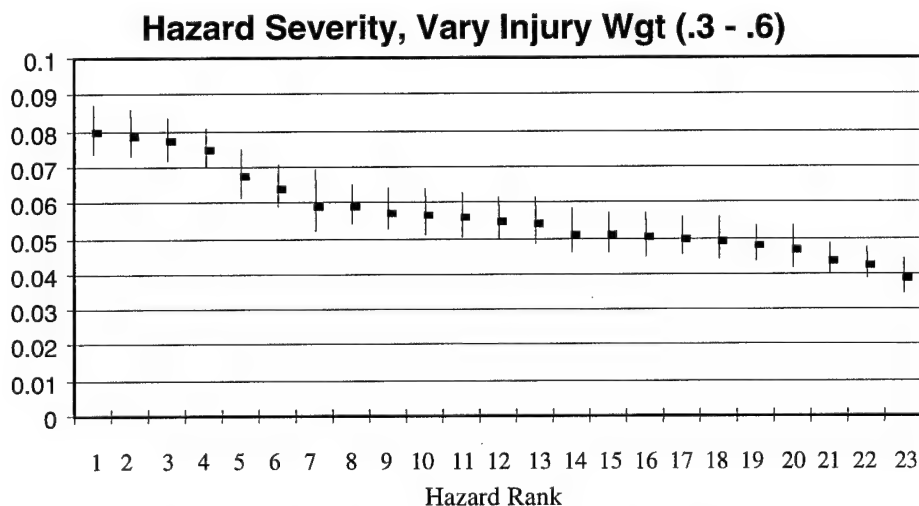
Figure 4-10   Hazard Sensitivity: Injury Weight

It is clear from the sensitivity graph above that the hazard ranking is insensitive to the weight of the degree of injury or illness within its feasible range. Out of the top ten hazards, hazard seven was the only one to change in rank order throughout the feasible range, and only changed from number seven to number eight. The other three criteria's

sensitivity graphs closely resemble this criterion, these additional graphs are presented in Appendix G: Sensitivity Analysis.

4.5 Hazard Risk Ranking

Whether a hazard has occurred cannot be tracked accurately. There are, most likely, numerous instances when hazards occur and do not cause accidents. The data used for this research assumes that a hazard has occurred and has contributed to an accident. It is logical to assume that the more accidents that have resulted from a particular hazard, the more likely that hazard has occurred.

Table 4-6   Hazard Risk

Hazard	Definition	Severity	P(Hazard)	Hazard Risk	Normalized
SI16	Overconfidence/Complacency (5)	0.06718	0.20501	0.01377	1.00000
SI99	Inadequate Attention (14)	0.05076	0.22345	0.01134	0.82352
SI21	Environmental Conditions (8)	0.05875	0.14454	0.00849	0.61659
SI18	Inadequate Motivation/Mood (1)	0.07970	0.10103	0.00805	0.58466
SI07	Inadequate Experience(12)	0.05418	0.13864	0.00751	0.54543
SI06	Inadequate Unit Training (11)	0.05605	0.11209	0.00628	0.45619
SI09	Inadequate Written Procedure (18)	0.04798	0.12463	0.00598	0.43417
SI04	Inadequate/Improper Supervision by Direct Supervisor (13)	0.05119	0.10619	0.00544	0.39468
SI11	Material Improperly Designed (16)	0.04997	0.09735	0.00486	0.35321
SI13	Inadequate Quality Control,Manufactur, Assembly (9)	0.05699	0.04867	0.00277	0.20139
SI15	Inadequate Composure(3)	0.07701	0.03540	0.00273	0.19792
SI14	Inadequate Maintenance Inspection (15)	0.04693	0.05678	0.00266	0.19347
SI19	Fatigue(6)	0.06399	0.03761	0.00241	0.17473
SI03	Inadequate/Improper Supervision by Unit Com (4)	0.07363	0.03171	0.00233	0.16952
SI10	Inadequate Facilities/Services (17)	0.04904	0.02876	0.00141	0.10241
SI08	Habit Interference (20)	0.04361	0.02729	0.00119	0.08639
SI05	Inadequate School Training (13)	0.05003	0.02286	0.00114	0.08305
SI02	Inadequate/Improper Supervision by Staff Off (10)	0.05628	0.01549	0.00087	0.06329
SI17	Lack of Confidence (22)	0.03854	0.01622	0.00063	0.04540
SI01	Inadequate/Improper Supervision Higher (7)	0.05877	0.01032	0.00061	0.04405
SI20	Effects of Alcohol, Drugs, Illness (2)	0.07879	0.00664	0.00052	0.03797
SI12	Insufficient Number/type personnel (21)	0.04237	0.00664	0.00028	0.02042

The probabilities used to compute the hazard risk scores Table 4 are the probabilities, in the last eleven years, that hazard$_i$ was a contributing factor to an accident. Note that the sum of all P(hazard$_i$) does not equal one. More than one hazard can be determined to be a contributing factor to an accident. For this specific set of data there are 2,398 hazard occurrences with only 1,356 accidents, this is an average of 1.8 hazards contributing to each accident. In Table Four the previous ranking of the hazard's severity is shown in parenthesis in the Hazard description column. Only four of the top ten severe accidents stayed in the top ten when the probabilities were considered. Figure 4-11 depicts hazard severity versus the probability of occurrence.

Hazard Severity Vs. Probability
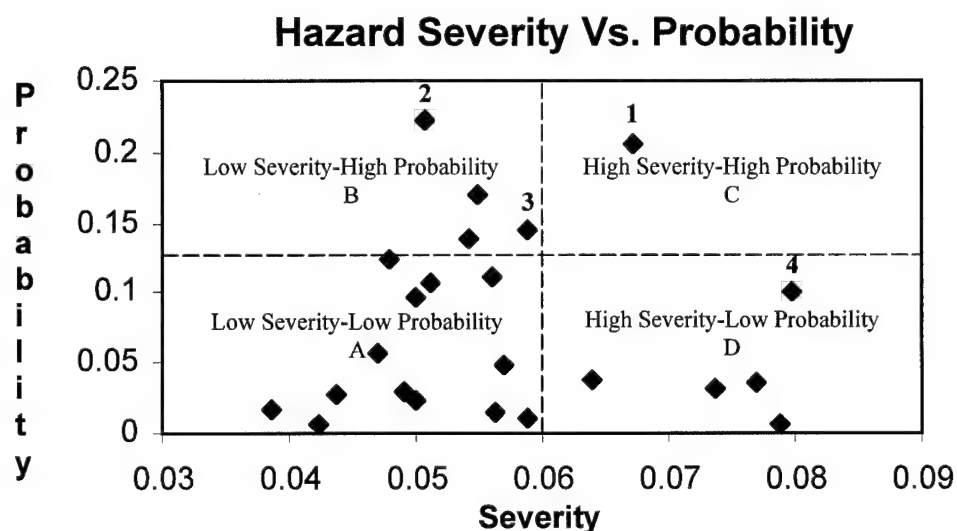
Figure 4-11   Hazard Severity versus Probability

This chart is divided into four regions. These regions are a quick reference to the distribution of risk when broken down into components of severity and probability. Hazards with the greatest risk are found around the outskirts of the chart. This is where the hazard is composed of a high severity, a high probability, or both. The data points of

4-21

the four most severe hazards are labeled. The distribution of the scores of the top ten

hazards is depicted below in the Figure 4-12.
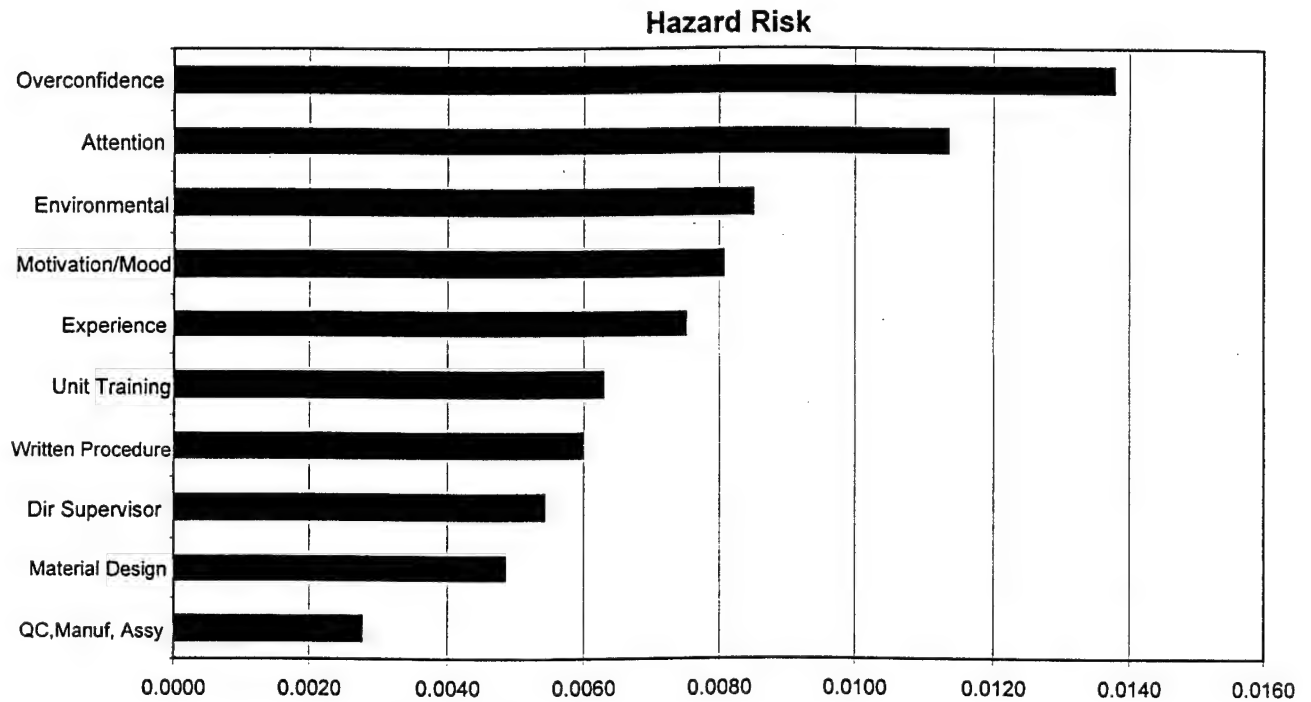
Hazard Risk

Figure 4-12   Hazard Risk Ranking

The categories of hazards (system inadequacies) are shown in Appendix A. The

ten most sever hazards are categorized below.

Figure 4-13 Hazard Categories

Table 4-7   Hazard Categories

Category	Percentage	Hazard
Individual Failure	40	Overconfidence/Complacency
		Poor Motivation/Mood
		Inadequate Attention
		Environmental Conditions
Training Failure	20	Unit Training
		Inadequate Experience
Support Failure	20	Material Design
		Inadequate Quality Control
Leader Failure	10	Direct Supervisor
Standards Failure	10	Inadequate Written Procedures

4.6 Summary

This chapter has presented the results of this research effort and a one-way sensitivity analysis of the weights of the major criteria. The goal of this project was to determine the top ten hazards, while accomplishing this goal other additional information was obtained. Accident and hazard severity and risk have been presented and the relationship between severity and risk has been discussed. The development of risk from severity is the first step in reducing the risk of accidents and hazards.

If the information presented here is used to allocate resources, a portfolio analysis is recommended to determine which of the hazards can be reduced or managed with the resources available. The model developed is not restricted to the hazards in this paper yet it is susceptible to the accuracy of the data and assumptions. These assumptions are not limited to the research in this paper the accuracy of the data is also dependent on the quality of the investigation done by the accident investigation team.

5 Conclusions and Recommendations

5.1 Conclusions

Determining the severity and risk of hazards in Army Aviation is a complicated process. Although there are army regulations, doctrine and technical experts energized towards a common goal of reducing severity and risk of such hazards there is currently no consistent methodology for accomplishing this. Investigation into the relevant doctrine, careful delineation of the terms involved, and value focused thinking provide the basis for developing and consistently using a structured methodology to assist decision-makers in making logical decisions concerning the allocation of resources for risk management. Identifying the underlying values of the Army Safety Center and Army doctrine will also assist the risk management experts in developing alternatives in order to reduce that risk.

The methodology presented in this paper is theoretically sound and a method of modeling supported by multi-attribute preference theory. The model developed through this research is however, heavily dependent upon data collection procedures and safety investigation results. The hazards (System Inadequacies) and accidents (events) used in this research were agreed upon as data that would be useful to (1) validate the concept of using value focused thinking to rank accidents and hazards and (2) develop the cornerstone for a research effort to be continued at the Army Safety Center for a proposed five year plan. The continuation of the research will continue to improve the model by developing a better taxonomy to identify the existing hazards in Army Aviation and furthermore to incorporate ground-related accidents and hazards.

The ten hazards with the highest risk rating are:

Table 5-1 Top Ten Hazards

Hazard	Definition	Severity	P(Hazard)	Hazard Risk
SI16	Overconfidence/Complacency (5)	0.0671	0.205	0.0137
SI99	Inadequate Attention (14)	0.0507	0.223	0.0113
SI21	Environmental Conditions (8)	0.0587	0.144	0.0084
SI18	Inadequate Motivation/Mood (1)	0.0797	0.101	0.0080
SI07	Inadequate Experience(12)	0.0541	0.138	0.0075
SI06	Inadequate Unit Training (11)	0.0560	0.112	0.0062
SI09	Inadequate Written Procedure (18)	0.0479	0.124	0.0059
SI04	Inadequate/Improper Supervision by Direct Supervisor (13)	0.0511	0.106	0.0054
SI11	Material Improperly Designed (16)	0.0499	0.097	0.0048
SI13	Inadequate Quality Control, Manufacturing, Assembly (9)	0.0569	0.048	0.0027

The risk score can be reduced by either decreasing the severity of the hazard or by reducing the probability of occurrence. As shown in Section 4.4, the most direct approach to reducing the severity of a specific hazard is to reduce the probability of occurrence. This method may be more direct yet more difficult. There are some critical unknowns present when dealing with the probability or hazards specifically, how many times does a hazard occur before it produces an accident? Further research should be conducted to determine the actual probability of a hazard occurring, regardless of whether it contributed to an accident or not.

Figures 4-8 and 4-13 represent accident/hazard severity versus the probability of occurrences. The obvious accidents and hazards to focus on are the ones in area C, high severity and high probability. Others can also be reduced but this area is high severity and high probability. The most efficient way to reduce hazards is to take steps towards

reducing their probability. This will consequently reduce the probability of individual accidents occurring. When attempting to reduce accident risk controls should be developed to reduce their severity. These may be two drastically different approaches. To reduce the severity of an accident the senior leadership might look at more protection in the cockpit of the aircraft while to reduce the probability of occurrence of a hazard they would turn towards the pilot training program. For instance, the to hazard risk is overconfidence/complacency of the pilot. A chief contribution is the hazard's correlation with the severity of tree strikes. The probability that a tree strike occurred, given that the accident was caused partially by overconfidence or complacency, is slightly over 19%. Therefore, we can reduce the risk of this hazard by additional training in an attempt to reduce the probability of the occurrence of the hazard or possibly install a proximity-warning device to reduce the number of tree strikes. Both of these methods would reduce the overall risk of this hazard.

5.2 Recommendations

5.2.1 Value Functions

The severity functions developed in this research were developed over an eight-month period in conjunction with the Army Safety Center and other safety experts. To expand this model for Army use, the single dimensional value functions may need to be adjusted in order to represent decision- maker's views at different command levels. For this research, experts in the field of aviation, maintenance, personnel and safety were used to develop the value functions. For future use this list of experts may have to be expanded down to the field units. Some of the concerns involve the preferences of senior

leadership of the Army on dollars expended and lives. Furthermore, the Safety Center is trying to initiate a program, based on value focused thinking to change the way the Army manages risk. This model is based on a gold standard taken from Army doctrine and developed with the Safety Center. In order to change the way risk management is performed; doctrine may have to be rewritten necessitating a change in the value hierarchy. At that time, a gold standard may not be the best method. A silver standard, bottom up approach, may be the appropriate methodology by establishing a new standard by involving experts from different facets of military life and developing a new hierarchy for the severity of accidents. Such a visionary style of leadership usually requires other methods of building value models, a silver standard is one and an (Platinum) interview method is another (Parnell, 1997).

5.2.2 Data Collection

The span of years over which data was collected for this project (11 years) was chosen in order to gather as much data as possible without incorporating data that may be outdated due to changes in tactics, techniques and procedures in Army Aviation. This represents a period of time when the Army introduced three relatively new aircraft into various units in the Army: the AH-64, the UH-60, and the OH-58 D. This was a time period where trends were set and tactics and techniques were being developed. The problem with this time period is that there were a number of accident types that had only one occurrence while other accidents occurred over 150 times. Using older data may lead to erroneous results. If the data collection period is too small the amount of data may not be sufficient and also lead to ill-conceived conclusions.

Given only one occurrence of an accident, there was not enough information to generalize results of similar accidents in the future. No standard deviation could be developed nor could a range be established. In order to alleviate this problem some of the accident categories may be able to be combined or associated with a like group of accidents. In that manner conclusions can be drawn with less uncertainty about a group of accidents as opposed to relying on one, or very few data points.

5.2.3 Environmental Data

Although Army safety doctrine dictates that one of the four criteria for establishing the severity of an accident or a hazard is the damage to the environment, there has been very little data collected on the environment during the accident investigation. Figure 5-1 represents some of the environmental areas that are represented
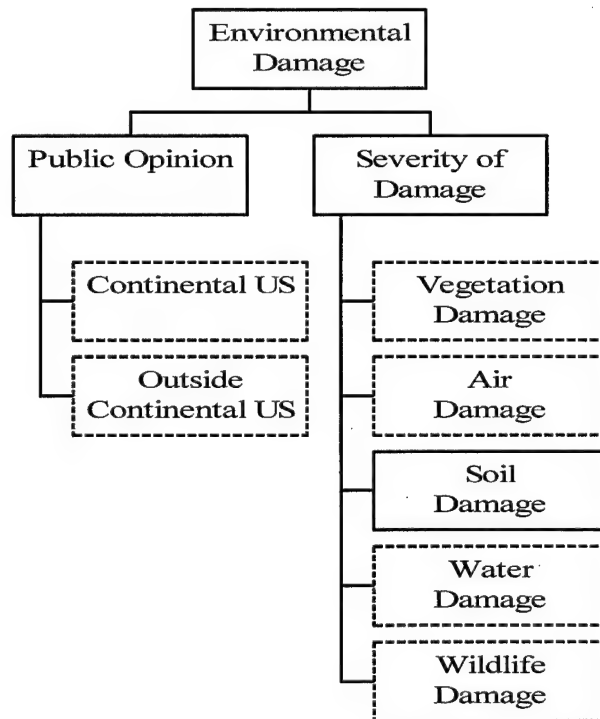
Figure 5-1 Environmental Damage Data

in the environmental protection matrix outlined in FM 20-400 / MCRP 4-11B, the

Military Environmental Protection Manual. Further investigation could be conducted to

establish measures that could adequately describe each of the evaluation considerations

depicted in the dashed boxes below.

Currently the only information that accurately records damage to the environment

in the database at the Safety Center is gallons of oil, fuel and hydraulic fluid spilled at the

sight. Other factors such as fire and chemicals present are tracked but their effect on the

environment cannot be derived. The database is built from the accident investigation

forms that are filled out by a board assigned to the accident. More extensive guidelines

could be established for the collection of data concerning the environment. Although it

would take years to establish a meaningful database, adequate measures for the areas of

concern mentioned above could be attained by the investigation board at the accident

sight. Some example questions that could be asked at the sight are given below.

1) If a fire was present what was the extent of damage to the surrounding area?

2) If the accident occurred overseas was there damage to civilian property, what type and how much?

3) What clean up was required by the local unit or civilian agency?

4) Was the accident near a water source?

5.2.4 Hazards and Controls

One of the problems encountered during this research was establishing what

constituted a hazard. The Army Safety Center has taken the steps necessary to continue

the work in the area of hazard severity, one of the major goals of their efforts is to

develop a better hazard classification system and controls classification system. The

areas of concern and the measures used in this research should assist in that effort. The value hierarchy established here should be particularly helpful in developing controls to reduce the severity of accidents and hazards.

By Identifying the accident severity criteria that contributed the greatest to the severity of an accident or hazard, risk managers can focus their efforts to reduce those specific effects. Furthermore, if experts deem that the efforts required to reduce the severity are not feasible they can chose to focus on reducing the probability of the event occurring and therefore reducing the risk. In this manner, resources expended towards the reduction of risk can be directed more efficiently and effectively.

In addition to establishing controls, the approach used in this research to determine hazard severity can be used to identify those combinations of hazards that drastically increase risk. The following equation can be used to determine those combinations of hazards with the largest severities:

$$\text{Severity of Hazard Combination}_{jk} = \sum_{i=1}^{65} P(\text{Accident}_i \mid \text{Hazard}_{jk}) * \text{Severity (Accident}_i)$$

5.3   Contributions

The consequences of an accurate hazard severity ranking and appropriate allocation of resources include effects on soldier's lives, unit morale, scientific advancement, and technological progress, as well economic costs and benefits. A careful analysis of each hazard has high potential payoff for the Army safety Center, Aviation, and the Department of the Army as a whole. The benefits that will be derived are; lives saved due to the identification and remediation of the correct hazards and the possibility

of optimal resource allocation within a given budget. In addition, the methodology can be applied to other safety settings and issues.

Aside from identifying hazard severity and risk, the same measures were established for specific accidents. This type of information is valuable at the tactical level. Certain hazards are unavoidable do to mission requirements. If tactical commanders know the correlation of certain accidents to existing hazards they can take steps to reduce the chance or severity of those specific accidents.

The proposal, projected benefits and a summarized methodology for this research was submitted to the Department of the Army Studies Program. The research effort was selected and awarded $98,000 for continued research in coordination with the Safety Center. A statement of work has since been developed to expand the scope of the project. The overriding goal is to revamp the manner in which hazards are identified and ranked and how controls are developed and implemented to reduce the severity and risk of hazards and accidents. The study will initially be centered on the Army Safety Center but will be developed for field unit implementation over a five-year period. A description of the continuation of work will be resubmitted each year to the studies program for additional funding.

Appendix A: Accident/Incident Event and System Inadequacies Codes Associated with Aircraft Accidents

A.1 Accident/Event Codes.

The following codes and explanations below are provided to categorize aviation accidents by the type of event(s) involved.

Code: 01 **Title:** Precautionary landing (PL).

Explanation: A landing resulting from unplanned events, occurring while the aircraft is in flight that makes further flight inadvisable. This event is to be used for PLs where no other event applies or in conjunction with other materiel failure events.

Code: 02 **Title:** Forced landing (FL).

Explanation: A landing caused by failure or malfunction of engines, systems, or components that makes continued flight impossible. This event is to be used in conjunction with other materiel failure/malfunction events.

Code: 03 **Title:** Aborted takeoff.

Explanation: An unplanned event that occurs before liftoff that interrupts a planned flight. This event is to be used for aborted takeoffs where no other event applies or in conjunction with other materiel failure events.

Code: 04 **Title:** Human factor event.

Explanation: A psychological, physiological, or pathological condition that occurs to personnel when intent for flight exists and results in interference with a crewmember's duties during aircraft operations or mission being delayed, diverted, or aborted.

Code: 05 **Title:** Cargo event.

Explanation: Injury or property damage resulting from cargo- related accident/incident; intentional or unintentional jettisoning of cargo hook load.

Code: 06 **Title:** Personnel handling event.

Explanation: Injury or property damage involving personnel handling errors or personnel handling.

Code: 07 **Title:** External stores event.

Explanation: Injury or property damage resulting from external stores handling errors or equipment failures.

Code: 08 **Title:** Multiple aircraft event.

Explanation: Injury or property damage resulting from the interactions of two or more aircraft. To qualify as a multiple aircraft event, two or more aircraft, with engines running, must be involved.

Code: 09 **Title:** Misappropriated aircraft.

Explanation: An aircraft accident that occurs during the operation of an Army aircraft that has been misappropriated, regardless of aircrew designation. Intent for flight must exist.

Code: 10 **Title:** Drone aircraft.

Explanation: Drone aircraft are identified by "Q" designator, and may be flown or operated by rated or nonrated personnel, or by remote control. When manned, they will be regarded as aircraft and reported accordingly. When unmanned, and operated by remote control, the accident will be reported using DA Form 285.

Code: 11 **Title:** Contractor aircraft accident.

Explanation: An aircraft accident that occurs as a result of a government contractor's operation in which there is damage to Army property or injury to Army personnel. Included is non-delivered equipment for which the Army has assumed responsibility.

Code: 12 **Title:** Aircraft ground accident.

Explanation: Injury or property damage involving an Army aircraft in which no intent for flight exists and the engines are in operation.

Code: 13 **Title:** Laser-induced/related.

Explanation: Property damage or personnel injury resulting from laser operations created. May be used in conjunction with other events.

Code: 14 **Title:** Fratricide.

Explanation: Persons killed or wounded, or equipment damaged, in military action, mistakenly or accidentally, by friendly forces actively engaged with the enemy, who are directing fire at hostile force or what is thought to be a hostile force.

Code: 15-19 (Reserved for future additions.)

Code: 20 **Title:** Refueling Accident.

Explanation: Damage incurred during refueling operations on the ground or in-flight.

Code: 21 **Title:** Midair Collision.

Explanation: Those accidents in which more than one aircraft collide in flight. Hover is considered in flight. Damage does not have to be done to both aircraft (will be used in addition to "08 multiple aircraft event").

Code: 22 **Title:** Helo-casting.

Explanation: Property damage or personnel injury occurring during helo-casting operations.

Code: 23 **Title:** Hard Landing.

Explanation: Damage incurred due to excessive sink rate on landing touchdown. Includes auto-rotation landings when skids are damaged; main rotor blade flexing into tail boom; tire blowing on touchdown; landing gear driven into fuselage; fuselage, wing, etc., buckling. Note: The landing area must be suitable for a probable successful landing.

Code: 24 **Title:** Wheels-Up Landing.

Explanation: Aircraft equipped with retractable landing gear in the wells. Includes intentional gear-up landings; crew forgetting to lower gear; gear does not extend when gear handle placed down.

Code: 25 **Title:** Landing Gear Collapse/Retraction.

Explanation: During takeoff, landing, or taxi, the gear collapses for any reason or the crew inadvertently retracts or retracts too soon on takeoff (does not include gear shearing due too hard landing).

Code: 26 **Title:** Undershoot.

Explanation: When an approach is being made to a prepared area of field and the aircraft touches down short of the suitable landing surface. (Does not include striking wires, trees, etc., on approach except an aircraft striking an airport boundary fence.)

Code: 27 **Title:** Overshoot or Overrun.

Explanation: Landing in which the aircraft runs off the end of the runway because of touchdown speed, too-short runway, touching down too long, or failure of brakes.

Code: 28 **Title:** Ditching.

> **Explanation:** Landing in a controlled attitude in water. (Does not include creeks, streams, etc., or those landings to ships or barges in which the aircraft crashes in the water.)

Code: 29 **Title:** Ground Loop/Swerve.

> **Explanation:** When aircraft damage is incurred because absolute directional control is not maintained (intentional or unintentional). Includes F/W ground loops; R/W autorotational landings; R/W running landings due to antitorque failures; aircraft running off side of runway.

Code: 30 **Title:** Collision with Ground/Water.

> **Explanation:** Those accidents in which the aircraft strikes the ground or water unintentionally. Includes crashing into a mountain under IFR, IMC, or night; inadvertent flying into the ground or water, such as making a gun run and failing to pull up; low-level flight resulting in striking ground or water.

Code: 31 **Title:** Aircraft Collisions on the Ground.

> **Explanation:** Accidents in which two or more aircraft collide on the ground. None of the aircraft can be in flight. (used in addition to '08' multiple aircraft event).

Code: 32 **Title:** Other Collisions.

> **Explanation:** Accidents when an aircraft collides with something not accounted for by other type events listed.

Code: 33 **Title:** Rotor overspeed.

> **Explanation:** Main rotor RPM exceeding the allowable limits for continued flight.

Code: 34 **Title:** Fire and/or Explosion on the Ground.

Explanation: Accidents that are initiated by a fire or explosion. The damage incurred must be prior to lift-off and/or after touchdown.

Code: 35 **Title:** Fire and/or Explosion in the Air.

Explanation: Same as on the ground except damage must be after lift-off and before touchdown.

Code: 36 **Title:** Equipment Loss or Dropped Object.

Explanation: Accidents in which some part of the aircraft or attached equipment is lost in flight, other than cargo and external stores.

Code: 37 **Title:** In-flight Breakup.

Explanation: Accidents in which aircraft begins to break up in flight. In these accidents, any type of landing is not expected. Includes loss of main rotor blades; loss of wing.

Code: 38 **Title:** Spin or Stall.

Explanation: Fixed wing aircraft type accidents resulting in stalling and/or spinning due of loss of airspeed or excessive angle of attack.

Code: 39 **Title:** Abandoned Aircraft.

Explanation: Accidents in which all flight crew eject or parachute.

Code: 40 **Title:** Flight-Related Accident.

Explanation: Damage to property or injury to personnel without damage to aircraft.

Code: 41 **Title:** Instrument Meteorological Condition (IMC).

Explanation: Aircraft must be in IMC conditions when the accident/ emergency occurs. This is a condition event and should not be used in the first position.

Code: 42 **Title:** Rappelling.

>**Explanation:** Property damage or personnel injury occurring during rappelling operations.

Code: 43 **Title:** STABO.

>**Explanation:** Property damage or personnel injury occurring during STABO operations.

Code: 44 **Title:** Overstress.

>**Explanation:** Stress damage to aircraft as a result of operating aircraft outside the design limitations.

Code: 45 **Title:** Foreign Object Damage (FOD) Incident.

>**Explanation:** Internal or external FOD damage confined to aircraft turbine engines only.

Code: 46 **Title:** Rotor/Prop Wash.

>**Explanation:** Property damage or personnel injury resulting from rotor/prop wash (does not include damage incurred by event 75).

Code: 47 **Title:** Engine Overspeed/Overtemp.

>**Explanation:** Engine RPM or temperature exceeding the allowable limits for continued operations.

Code: 48 **Title:** Brownout.

>**Explanation:** Loss of visual reference to the ground or horizon caused by rotor wash swirling dust around the aircraft. This is a condition event and should not be used in the first position.

Code: 49 **Title:** Bird Strike.

>**Explanation:** Accidents in which any part of the aircraft collides with a bird while in flight.

Code: 50 **Title:** Tree Strike.

Explanation: Accidents as a result of aircraft striking vegetation during any phase of flight.

Code: 51 **Title:** Wire Strike.

Explanation: Accidents as a result of the aircraft striking any kind of wires during any phase of flight.

Code: 52 **Title:** In-flight Breakup due to mast bumping.

Explanation: Accidents in which the main rotor separates as result of mast bumping.

Code: 53 **Title:** Missing Aircraft.

Explanation: Used when an aircraft does not return from a flight and is presumed to have crashed.

Code: 54 **Title:** FOD.

Explanation: Accident in which foreign object damage is the only damage incurred.

Code: 55 **Title:** Dynamic Rollover.

Explanation: Accident in which the main rotor blades strike the terrain as a result of exceeding the lateral CG limits, while the aircraft structure is still intact.

Code: 56 **Title:** Maintenance Operational Check (MOC).

Explanation: Accidents that occur during an MOC while the engine(s) is (are) in operation and/or rotors turning.

Code: 57 **Title:** Weapons Related.

Explanation: Accidents that result in property damage or injury to personnel.

Code: 58 **Title:** Lightning Strike.

Explanation: Damage to aircraft/injury to occupant because of lightning strike(s).

Code: 59 **Title:** Rescue operations.

Explanation: Property damage or personnel injury occurring during rescue operations.

Code: 60 **Title:** Object Strike.

Explanation: Aircraft/aircraft component struck objects other than ground, trees, or objects included in other events.

Code: 61 **Title:** Air to Ground Collision.

Explanation: Aircraft in the air collides with or strikes aircraft on the ground.

Code: 62 **Title:** Stump Strike.

Explanation: Aircraft contacts stump during routine landing.

Code: 63 **Title:** Antenna Strike.

Explanation: Aircraft damage caused by contact with an antenna.

Code: 64 **Title:** Engine Overtorque/Overload.

Explanation: Engines that have been subjected to torque loads beyond power limits specified, or engine loses rpm because of overload of aircraft for density altitude.

Code: 65 **Title:** Whiteout.

Explanation: Loss of visual reference to the ground or horizon caused by rotor wash swirling snow around the aircraft. This is a condition event and should not be used in the first position.

Code: 66 **Title:** Tiedown Strike.

Explanation: Damage to the aircraft caused by main rotor tiedown device attached to M/R rotor during engine start.

Code: 67 **Title:** Parachute.

> **Explanation:** Accidents involving paradrop operations inside or still attached to the aircraft.

Code: 68 **Title:** Mast Bumping.

> **Explanation:** Damage resulting from contact between the main rotor and mast but not resulting in rotor separation.

Code: 69 **Title:** Structural Icing.

> **Explanation:** The formation of ice on aircraft structures to include the rotor systems. Does not include carburetor, induction, or pitot static system icing.

Code: 70 **Title:** Engine Failure.

> **Explanation:** Engine fails to develop sufficient power to maintain flight or internal failure of power plant. Excludes fuel starvation or fuel exhaustion and FOD.

Code: 71 **Title:** Transmission Failure.

> **Explanation:** Internal failure of a main transmission.

Code: 72 **Title:** Vertical Fin Strike.

> **Explanation:** Damage caused by the tail rotor blades coming in contract with the vertical fin on single rotor helicopters.

Code: 73 **Title:** Spike Knock.

> **Explanation:** Damage occurred when the transmission spike contacts the striker plate with sufficient force to cause damage.

Code: 74 **Title:** Seatbelt/Restraint Harness Strike.

> **Explanation:** Damage caused by unsecured seatbelts/restraint harnesses.

Code: 75 **Title:** Blade Flapping.

> **Explanation:** Damage resulting from wind or rotor wash from other aircraft that causes the M/R blades to flap to the extent that damage occurs.

Code: 76 **Title:** Fuel Exhaustion.

> **Explanation:** Power loss resulting from using all usable fuel aboard an aircraft.

Code: 77 **Title:** Fuel Starvation.

> **Explanation:** The result of fuel ceasing to flow to the power plant while fuel is still on board the aircraft. Example: The pilot fails to switch tanks when one runs dry or blockage of fuel lines occurs because of contamination.

Code: 78 **Title:** Animal Strike.

> **Explanation:** During takeoff, landing, etc., an animal is struck by any part of the aircraft.

Code: 79 **Title:** Battery Fire/Overheat.

> **Explanation:** A fire in the battery compartment or overheated battery, usually resulting in electrical failure.

Code: 80 **Title:** Excessive Yaw/Spin.

> **Explanation:** May occur on the ground or in the air (helicopter only). A maneuver where the aircraft yaws excessively or spins when power is added without adequate antitorque input or a loss of antitorque control occurs.

Code: 81 **Title:** Tail Boom Strike.

> **Explanation:** Main rotor contacts tail boom on the ground due to wind conditions. Excludes hard landings and damage caused by rotor wash.

In addition to events 70 and 71 listed above the following events are used to categorize materiel factor related mishap events. The event applies regardless of the cause of the failure/malfunction (FWT, maintenance, design or manufacture).

Code: 82 **Title:** Airframe.

> **Explanation:** Failure/malfunction of any airframe structure to include doors windows, fairings, canopies, etc to include hardware.

Code: 83 **Title:** Landing Gear.

> **Explanation:** Failure/malfunction of any landing gear part exclusive of the hydraulics.

Code: 84 **Title:** Power train.

> **Explanation:** Failure/malfunction of any part/component of the power train except when events 47 or 70 applies.

Code: 85 **Title:** Drive Train.

> **Explanation:** Failure/malfunction of any part/component of the drive train except when events 86 and 71 applies.

Code: 86 **Title:** Rotor/Propellers.

> **Explanation:** Failure/malfunction of rotor/prop assemblies, hubs, blades, etc. Excludes other drive train part failures; e.g. gearboxes, mast etc.

Code: 87 **Title:** Hydraulics System.

> **Explanation:** Failure/malfunction of any hydraulic part. The failure of other systems resulting from hydraulic initiated failures will be coded as hydraulic.

Code: 88 **Title:** Pneumatic System.

> **Explanation:** Failure/malfunction of any pneumatic part. The failure of any other system resulting from pneumatic initiated failures will be coded as pneumatic.

Code: 89 **Title:** Instruments.

> **Explanation:** Failure/malfunction of any part of the instrument system that results in a faulty instrument indication.

Code: 90 **Title:** Warning System.

> **Explanation:** Failure/malfunction of any part of the warning system that results in an false indication of a failure/malfunction. Includes electrical components of the warning system.

Code: 91 **Title:** Electrical System.

> **Explanation:** Failure/Malfunction of any part of the AC or DC electrical systems. Includes current producing, transforming, converting and amplifying parts e.g. battery, generator, alternator, relay etc.

Code: 92 **Title:** Fuel System.

> **Explanation:** Failure of any part of the fuel system. Does not include the fuel metering/fuel control unit that will be reported as part of the engine.

Code: 93 **Title:** Flight Control.

> **Explanation:** Failure/malfunction of any part of the system. Excludes hydraulic part failures.

Code: 94 **Title:** Utility/Environmental Control System.

> **Explanation:** Failure/malfunction of any part of the system.

Code: 95 **Title:** Avionics.

> **Explanation:** Failure of any part of the radio navigation/communication equipment.

Code: 96 **Title:** Cargo Handling Equipment.

> **Explanation:** Failure of the cargo handling equipment attached to the aircraft only.

Code: 97 **Title:** Armament.

Explanation: Failure of any part to include the aiming/firing system.

A.2 System Inadequacies/Hazards.

A. LEADER FAILURE

Code: 01 **Title:** Inadequate/improper supervision by higher command.

Code: 02 **Title:** Inadequate/improper supervision by staff officer.

Code: 03 **Title:** Inadequate/improper supervision by unit command.

Code: 04 **Title:** Inadequate/improper supervision by direct supervisor/noncommissioned officer in charge/platoon leader/instructor.

> **Explanation:** NOTE: Inadequate supervision becomes a root cause when it leads to accident-causing personnel mistakes or materiel failure/malfunctions. Inadequate supervision is more clearly identifiable at the immediate-supervisor level.

B. TRAINING FAILURE

Code: 05 **Title:** Inadequate school training.

> **Explanation:** School training becomes a root cause when people make accident-causing mistakes because the school training was inadequate in content or amount.

Code: 06 **Title:** Inadequate unit/on-the-job training.

> **Explanation:** Unit/on-the-job training becomes a root cause when people make accident-causing mistakes because the training provided was inadequate in content or amount.

Code: 07 **Title:** Inadequate experience.

> **Explanation:** Supervised on-the-job experience is the follow-up to school and unit training programs. Experience becomes a root cause when people make accident-causing mistakes because the experience provided was inadequate in content or amount.

Code: 08 **Title:** Habit interference.

> **Explanation:** Habit interference becomes a root cause when a person makes an accident-causing error because task performance was interfered with either the way he usually performs similar tasks, or the way he usually performs the same task under different conditions or with different equipment.

C. STANDARDS FAILURE

Code: 09 **Title:** Inadequate written procedures for operation under normal or abnormal/emergency conditions.

> **Explanation:** Inadequate written procedures (AR, TM, FM, SOP, written directives) become the root causes when they lead to accident-causing mistakes or materiel failures/malfunctions.

D. SUPPORT FAILURE

Code: 10 **Title:** Inadequate facilities/services.

> **Explanation:** Inadequate facilities or services become root causes when the maintenance, space and/or support provided for personnel and materiel to accomplish their functions cause mistakes or failures/malfunctions that lead to accidents. (Examples of facilities or services are recreation areas, POL services, housing, medical clinics/hospitals, weather services, storage areas, maintenance facilities, and property disposal.)

Code: 11 **Title:** Inadequate/improper equipment design or equipment not provided.

> **Explanation:** Improperly designed equipment and materiel or lack of equipment/materiel become root causes when the design or lack of equipment leads to accident-causing personnel errors or materiel failures/malfunctions.

Code: 12 **Title:** Insufficient number or type of personnel.

Explanation: Insufficient number or type of personnel becomes a root cause when people make accident-causing mistakes or materiel fails/malfunctions because the number or type of personnel provided was insufficient.

Code: 13 **Title:** Inadequate quality control, manufacture, packaging, or assembly.

Explanation: The inadequate manufacture, assembly, packaging, or quality control of materiel becomes a root cause when it leads to accident-causing personnel errors or materiel failures/malfunctions. (Note: Includes original manufacture and rebuild.)

Code: 14 **Title:** Inadequate maintenance.

Explanation: Inadequate maintenance (inspection, installation, troubleshooting, recordkeeping, etc.) becomes a root cause when it leads to accident-causing personnel errors or materiel failures/malfunctions.

E. INDIVIDUAL FAILURE

Code: 15 **Title:** Fear/Excitement/Anger (inadequate composure).

Explanation: Each person is a part of the system. Therefore, his state of mind is a system element. Inadequate composure is a temporary state of mind that becomes a root cause when a person makes an accident-causing error because of fear, excitement, or some related emotional factor made clear, rational thought impossible.

Code: 16 **Title:** Overconfidence/complacency in abilities.

Explanation: Overconfidence is a temporary state of mind that becomes a root cause when an accident is caused by a person's unwarranted reliance on: his own ability to perform a task, the ability of someone else to perform a task, the performance capabilities of equipment or other materiel.

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Code: 17 **Title:** Lack of confidence.

> **Explanation:** Lack of confidence is a temporary state of mind that becomes a root cause when an accident is caused by a person's unwarranted lack of reliance on; his own ability to perform the task, the ability of someone else to perform the task, the performance capabilities of equipment or other materiel.

Code: 18 **Title:** Haste/Attitude (poor motivation).

> **Explanation:** Haste/attitude (poor motivation) is a temporary state of mind that becomes a root cause when a person makes an accident-causing mistake because he/she is in a hurry (haste), or has a poor/bad attitude.

Code: 19 **Title:** Fatigue (self-induced).

> **Explanation:** Fatigue is a temporary physical and/or mental state that becomes a root cause when a person makes an accident-causing error because of reduced physical or mental capabilities resulting from previous activity and/or lack or rest.

Code: 20 **Title:** Effects of alcohol, drugs, illness.

> **Explanation:** The temporary effects of alcohol, drugs, or illness become a root causes when a person makes an accident-causing error because of reduced physical or mental capabilities resulting from one or more of these effects.

Code: 21 **Title:** Environment conditions.

> **Explanation:** Unknown or unavoidable conditions, which result in materiel failure or induce human error.

Code: 97 **Title:** Insufficient information to determine system inadequacy/cause.

Appendix B: Glossary of Safety Related Terms

Aborted takeoff

An unplanned event that occurs before intent for flight exists, with engine(s) running, that interrupts a planned flight (except for maintenance test flights and factory acceptance flights).

Accident

An unplanned event that causes personal injury or illness, or property damage.

Active Army personnel

Members of the Army on full-time duty in active military service, including cadets at the U.S. Military Academy.

Aircraft

A manned weight carrying structure for navigation of the air that is supported by its own buoyancy or the dynamic action of the air against its surfaces.

Aircraft ground accident

Injury or property damage accidents involving Army aircraft in which no intent for flight exists, and the engine(s) is/are in operation.

Army accident

An accident that results in injury/illness to either Army or non-Army personnel, and/or damage to Army or non-Army property as a result of Army operations (caused by the Army).

Army civilian personnel

a. Senior Executive Service, General Management, General Schedule, and Federal Wage System employees.

b. Corps of Engineer Civil Works employees.

c. Army National Guard and Army Reserve technicians.

d. Nonappropriated fund employees (excluding part-time military).

e. Youth/Student Assistance and Temporary Program employees; Peace Corps and Volunteers in Service to America (VISTA) volunteers; Job Corps, Neighborhood Youth Corps, and Youth Conservation Corps Volunteers; Family Support Program volunteers.

Commander

An individual that exercises authority and responsibility over subordinates by virtue of rank or position. The purpose of that authority and responsibility is to effectively use available resources and plan the employment of, organize, direct, coordinate and control the actions of an Army organization for the purpose of successful mission accomplishment. Examples of commanders are as follows:

a. Commander of a major Army command, CONUS and OCONUS.

b. The Chief of Engineers (civil and military works).

c. Commander, U.S. Army Space and Strategic Defense Command.

d. The Chief, Army National Guard Bureau.

e. Commander, U.S. Army Medical Research and Development Command.

f. Commanders of Army installations with a full-time safety professional. This includes posts, camps, stations, and military communities.

g. State adjutants general (ARNG).

h. Commanders of Army Reserve organizations with a full-time safety professional.

i. Commanders of medical treatment facilities.

j. Commanders in direct support of general support maintenance units.

k. Director of Facilities Engineering.

l. Provost Marshal/Law Enforcement Commander.

m. Director of Industrial Operations.

n. U.S. Army Plant Representative Office.

o. Commander of TOE, MTOE, or TDA organization.

Competent medical authority

Any duly qualified physician (Government or private), who is approved by the Office of Workman's Compensation to render treatment. "Competent medical authority" includes surgeons, podiatrists, dentists, clinical psychologists, optometrists, chiropractors, and osteopathic practitioners.

Contractor accident

An accident that occurs as a result of a Government contractor's operations in which there is damage to U.S. Government or Army property or equipment, injury or occupational illness to Army personnel, or other reportable event.

Destroyed aircraft

An aircraft is considered destroyed/total loss when the estimated cost to repair exceeds the current full-up replacement cost.

Drone aircraft

Those serial vehicles having a "Q" designator and which can be flown or operated by rated or non-rated personnel, or which can be flown or operated in the remote control configuration.

Emergency

An event for which an individual perceives that a response is essential to prevent or reduce injury or property damage.

Environmental factors

Environmental conditions that had, or could have had an adverse effect on the individual's actions or the performance of equipment.

Fair wear and tear

Damage to time-between-overhaul (TBO) items such as gearboxes, tires, and other items that deteriorate with use. (Hot starts, overspeeds, and overtorques are not considered fair wear and tear.)

Flight crew

Personnel on flight pay who are involved in operation of the aircraft.

Forced landing

A landing caused by failure or malfunction of engines, systems, or components that makes continued flight impossible.

Foreign object damage (FOD)

Damage to Army vehicle/equipment/property as a result of objects alien to the vehicle/equipment damaged. Excludes aircraft turbine engine(s) defined as a FOD incident.

Fratricide/Friendly Fire (FF)

A circumstance applicable to persons killed or wounded, or equipment damaged, in military action, mistakenly or accidentally, by friendly forces actively engaged with the

enemy, who are directing fire at a hostile force or what is thought to be a hostile force. Fratricide/FF incidents will be primarily investigated and reported under DODI 6055.7.

Ground accident

Any accident exclusive of aviation (flight/flight related) (for example, AMV, ACV, POV, marine.)

Hospitalization

Admission to a hospital as an inpatient for medical treatment.

Human error

Human performance that deviated from that required by the operational standards or situation. Human error in accidents can be attributed to a system inadequacy/root cause in training, standard, leader, individual, or support failure indicated below:

Human factors

Human interactions (man, machine, and/or environment) in a sequence of events that were influenced by, or the lack of human activity, which resulted or could result in an Army accident.

Individual failure

Soldier knows and is trained to standard but elects not to follow standard (self-discipline- -mistake due to own personal factors).

Initial Denial Authority

The official at HQDA-level with the authority to deny release of a document, in whole or in part, under the Freedom of Information Act.

Injury

A traumatic wound or other condition of the body caused by external force, including stress or strain. The injury is identifiable as to time and place of occurrence and member or function of the body affected, and is caused by a specific event or incident or series of events or incidents within a single day or work shift.

Installation-level safety manager

a. The senior full-time safety professional responsible for providing safety support to Army installations, including camps, stations, military communities, and USAR organizations.

b. State Safety Manager or Specialist (ARNG).

Intent for flight

Intent for flight begins when aircraft power is applied, or brakes released, to move the aircraft under its own power with an authorized crew. Intent for flight ends when the aircraft is at a full stop and power is completely reduced.

Investigation

A systematic study of an accident, incident, injury, or occupational illness circumstances.

Lost-time case

A nonfatal traumatic injury that causes any loss of time from work beyond the day or shift in which it occurred or a nonfatal non-traumatic illness/disease that causes disability at any time. This definition will be used when computing civilian lost-time frequencies for DOL reporting.

Lost-workday case involving days away from work

Cases in which an accident results in Army personnel missing one or more days of work. Days away from work are those workdays (consecutive or not) on which Army personnel would have worked but could not because of injury, occupational illness, or job-related physical deficiencies detected during medical surveillance examinations. Excluded are days that Army personnel would not have worked even though able to work (for example, weekends or holidays) and the day of the injury or onset of occupational illness.

Materiel factors

When materiel elements become inadequate or counter-productive to the operation of the vehicle/equipment/system.

Medical treatment

Any treatment (other than first aid) administered by a physician or by registered professional medical personnel under the orders of a physician.

Nonappropriated fund (NAF) employees

Employees paid from nonappropriated funds, including summer and winter hires and special NAF program employees. Military personnel working part-time in NAF employment are excluded.

Nonfatal case without lost workdays

Cases other than lost-workday cases where Army military or civilian personnel, because of an injury or occupational illness, experienced one or more of the following:

a. Permanent transfer to another job or termination.

b. Medical treatment greater than first aid.

c. Loss of consciousness.

d. Restricted work activity or profile.

e. Diagnosis as having an occupational illness that did not result in a fatality or lost-workday case. This includes newly diagnosed occupational illnesses detected on routine physical examinations.

Occupational illness

Non-traumatic physiological harm or loss of capacity produced by systemic infection; continued or repeated stress or strain; for example, exposure to toxins, poisons, fumes; or other continued and repeated exposures to conditions of the work environment over a long period of time. Includes any abnormal physical or psychological condition or disorder resulting from an injury, caused by long- or short-term exposure to chemical, biological, or physical agents associated with the occupational environment. For practical purposes, an occupational illness is any reported condition that does not meet the definition of an injury.

Occupational injury

A wound or other condition of the body caused by external force, including stress or strain. The injury is identifiable as to time and place of the occurrence and a member or function of the body affected, and is caused by a specific event or incident or series of events or incidents within a single day or work shift.

Off-duty

Army personnel are off-duty when they:

a. Are not in an on-duty status, whether on or off Army installations.

b. Have departed official duty station, temporary duty station, or ship at termination of normal work schedule.

c. Are on leave and/or liberty.

d. Are traveling before and after official duties, such as driving to and from work.

e. Are participating in voluntary and/or installation team sports.

f. Are on permissive (no cost to Government other than pay) temporary duty.

g. Are on lunch or other rest break engaged in activities unrelated to eating or resting.

On-duty

Army personnel are on-duty when they are:

a. Physically present at any location where they are to perform their officially assigned work. (This includes those activities incident to normal work activities that occur on Army installations, such as lunch, coffee, or rest breaks, and all activities aboard vessels.

b. Being transported by DOD or commercial conveyance for the purpose of performing officially assigned work. (This includes reimbursable travel in POVs for performing TDY, but not routine travel to and from work.)

c. Participants in compulsory physical training activities (including compulsory sports).

Permanent total disability

Any nonfatal injury or occupational illness that, in the opinion of competent medical authority, permanently and totally incapacitates a person to the extent that he or she cannot follow any gainful employment. (The loss or loss of use of both hands, feet, eyes, or any combination thereof as a result of a single accident will be considered as permanent total disability.)

Permanent partial disability

Any injury or occupational illness that does not result in death or permanent total disability but, in the opinion of competent medical authority, results in the loss or

permanent impairment of any part of the body, with the following exceptions:

a. Loss of teeth.

b. Loss of fingernails or toenails.

c. Loss of tip of fingers or tip of toe without bone involvement.

d. Inguinal hernia, if it is repaired.

e. Disfigurement.

f. Sprains or strains that do not cause permanent limitation of motion.

Precautionary landing

A landing resulting from unplanned events that makes continued flight inadvisable.

Preexisting physical condition

A medical condition that existed prior to the occurrence of the accident.

Recommendations

Those actions recommended to the command to correct system inadequacies that caused, contributed, or could cause or contribute to an Army accident. Also referred to in this pamphlet as corrective action, remedial measures and/or countermeasures.

Recordable

Reportable accident that meets the minimum criteria stated in the regulation for Class A-D accidents and Class E and FOD incidents.

Reportable

All occurrences that cause injury, illness, or property damage of any kind must be reported to the soldier's/employee's/unit's servicing/ supporting safety office.

Restricted work activity

Individual's injury is such that they are unable to perform their normal duties (for example, light-duty, profile).

ROTC personnel

a. Members of the ROTC during periods of basic or advanced training at premises owned or under the control of the Army whether on or off duty.

b. Cadets performing professional enrichment training while under Army supervision and directed by competent orders, regardless of the location of the training site. Regular training on campus is excluded; that is, weekly drill and classroom instruction.

c. Cadets involved in rifle and pistol marksmanship training under Army supervision on any firing range.

d. Cadets undergoing ROTC flight instruction.

Standards failure

Standards/procedures not clear or practical, or do not exist)

Support Failure

Inadequate equipment/facilities/services in type, design, availability, or condition, or insufficient number/type of personnel, which influenced human error, resulting in an army accident.

System inadequacy

A tangible or intangible element that did not operate to standards, resulting in human error or materiel failure. Also referred to in this pamphlet as causes, readiness shortcomings and/or root causes.

Training failure

Soldier/individual not trained to known standard (insufficient, incorrect or no training on task--insufficient in content or amount)

Appendix C: Army Accident Classification and Investigation

A.1 General

Army accident classes are used to determine the appropriate investigative and reporting procedures. The same classification system is used for accidents that occur in the air or on the ground. The classification definitions below are from Army Regulation 385-40 <u>Accident Reporting and Records,</u> which prescribes policy on accident reporting and recordkeeping procedures for the Army. This updated publication was extensively revised in early 1994 and released in November of 1994. Due to the extensive revisions, the changed portions of the regulation were not highlighted. This is the most current regulation update and is currently used in the U.S. Army Safety Center. AR 385-40 applies to the Active Army, the Army National Guard, the U.S. Army Reserve, and Army appropriated fund employees. This regulation is also applicable during full mobilization. This covers the spectrum of personnel involved in the accidents in this research and anything reported during the conflict in the Middle East.

A.2 Accident Classifications

Accident classes are as follows:

(1) **Class A accident:** An Army accident in which the resulting total cost of property damage is $1,000,000 or more; an Army aircraft or missile is destroyed, missing, or abandoned; or an injury and/or occupational illness results in a fatality or permanent total disability.

(2) **Class B accident:** An Army accident in which the resulting total cost of property damage is $200,000 or more, but less than $1,000,000; an injury and/or occupational illness results in permanent partial disability, or when five or more personnel are hospitalized as inpatients as the result of a single occurrence.

(3) **Class C accident:** An Army accident in which the resulting total cost of property damage is $10,000 or more, but less than $200,000; a nonfatal injury that causes any loss of time from work beyond the day or shift on which it occurred; or a nonfatal occupational illness that causes loss of time from work (for example, 1 work day) or disability at any time (lost time case).

(4) **Class D accident:** An Army accident in which the resulting total cost of property damage is $2,000 or more but less than $10,000.

Note. Nonfatal injuries/illnesses (restricted work activity, light duty, or profile) will only be recorded in ASMIS in conjunction with recordable property damage accidents.

(5) **Class E aviation incident:** An Army incident in which the resulting damage cost and injury severity do not meet the criteria for a Class A-D accident ($2,000 or more damage; lost time/restricted activity case). A Class E aviation incident is recordable when the mission (either operational or maintenance) is interrupted or not completed. Intent for flight may or may not exist. An example of a recordable Class E incident is: during maintenance operational check (MOC) the engine quits. Examples of nonrecordable Class E incidents are: chip detector light illumination and the component is not replaced; mission interrupted/aborted because of weather, unless mission is canceled; failure of Fair Wear and Tear (FWT) items found on pre- or post-flight inspection; radio failure where radio is replaced; closing a door found open in flight.

(6) **Foreign Object Damage (FOD) aviation incident (Also known as Class F incident):** Recordable incidents confined to aircraft turbine engine damage (does not include installed aircraft Auxiliary Power Units (APU)) as a result of internal or external FOD, where that is the only damage.

A.3 Accident Investigation Boards

There are different investigation procedures for different classes of accidents, these are described below.

(1) The following accidents will be investigated by a board consisting of a minimum of three members. The members should be officers, warrant officers, or DA safety and occupational health specialists/managers/engineers, GS-018/803-11/12/13/14.

 (a) All Class A and B accidents, except those involving off-duty military fatalities/injuries not involving military operations.

 (b) Any accident, regardless of class, that an appointing authority believes may involve a potential hazard serious enough to warrant investigation by a multimember board.

(2) Class C aircraft accidents (flight, flight related, or aircraft ground) will be investigated by a board of at least one officer, warrant officer, or DA safety and occupational health specialists/ managers/engineers, GS-018/803-9/11/12/13/14 (DA safety professional must directly manage an aviation safety program).

(3) When an accident involves Army property and another U.S. Military Service's property, a single joint board may be convened. Board members may be from the two Services involved. Appointment of the members and identification of a senior member as president will be made by mutual agreement between the commanders of the two Safety Centers. For uniform reporting within each service, the board's proceedings will be recorded in the format required by each service.

(4) The following accidents will be investigated by one or more officers, warrant officers, safety officers/NCOs, supervisors, or DA safety and occupational health specialist/manager/engineer, GS-018/ 803-9/11/12/13/14:

(a) Class C accidents.

(b) Class D accidents, Class E, and FOD incidents.

Appendix D: Accident Severity Data

General: This data set was generated in cooperation with the Operations Research & Systems Analysis / Statistics Division of the U. S. Army Safety Center. The data was extracted from the Aviation Safety Management Information System (ASMIS) database. The information in this spreadsheet depicts the Class a through C accidents that occurred from November 1987 to October 1998. The measures across the top of the spreadsheet represent the measures that were developed to determine accident severity. Each line represents a single accident. These are the raw scores that were input into the value functions described in Chapter Three.

COUNT	EVENT1	DAMCOST	INJCOST	TOTFTL	TOT DIS	PART DIS	DAYHOSP	DAYLOST	DAYREST	FLSPL	OLSPL	HYSPL
	01	0	340	0	0	0	0	2	0			
	01	11523	0	0	0	0	0	0	0			
	01	30206	0	0	0	0	0	0	0			
	01	12440	0	0	0	0	0	0	0			
	01	59688	0	0	0	0	0	0	0			
	01 Max	59688	340	0	0	0	0	2	0	0	0	0
	01 Min	0	0	0	0	0	0	0	0	0	0	0
	01 Total	113857	340	0	0	0	0	2	0	0	0	0
5	01 Average 0.003687316	22771.4	68	0	0	0	0	0	0			
01 Count												
	02	248086	0	0	0	0	0	0	0			
	02 Max	248086	0	0	0	0	0	0	0	0	0	0
	02 Min	248086	0	0	0	0	0	0	0	0	0	0
	02 Total	248086	0	0	0	0	0	0	0	0	0	0
1	02 Average 0.000737463	248086	0	0	0	0	0	0	0			
02 Count												
	03	125256	0	0	0	0	0	0	0			
	03	120685	0	0	0	0	0	0	0			
	03	14640	0	0	0	0	0	0	0			
	03 Max	125256	0	0	0	0	0	0	0	0	0	0
	03 Min	14640	0	0	0	0	0	0	0	0	0	0
	03 Total	260581	0	0	0	0	0	0	0	0	0	0
3	03 Average 0.002212389	86860.33333	0	0	0	0	0	0	0			
03 Count												
	04	10697	13885	0	0	0	10	25	30			
	04 Max	10697	13885	0	0	0	10	25	30	0	0	0
	04 Min	10697	13885	0	0	0	10	25	30	0	0	0
	04 Total	10697	13885	0	0	0	10	25	30	0	0	0
1	04 Average 0.000737463	10697	13885	0	0	0	10	25	30			
04 Count												
	05	0	755	0	0	0	1	3	0			
	05	24179	0	0	0	0	0	0	0			
	05	55563	0	0	0	0	0	0	0			
	05	121923	0	0	0	0	0	0	0			
	05	10000	0	0	0	0	0	0	0			
	05	54053	0	0	0	0	0	0	0			
	05 Max	121923	755	0	0	0	1	3	0	0	0	0
	05 Min	0	0	0	0	0	0	0	0	0	0	0
	05 Total	265718	755	0	0	0	1	3	0	0	0	0
6	05 Average 0.004424779	44286.33333	125.8333333	0	0	0	0	1	0			
05 Count												
	06	0	820	0	0	0	0	1	14			
	06	15853	0	0	0	0	0	0	0			
	06	190817	15844	0	0	0	34	0	14			
	06 Max	190817	15844	0	0	0	34	1	14	0	0	0
	06 Min	0	0	0	0	0	0	0	0	0	0	0
	06 Total	206670	16664	0	0	0	34	1	14	0	0	0
3	06 Average 0.002212389	68890	5554.666667	0	0	0	11	0	5			
06 Count												
	07	29850	0	0	0	0	0	0	0			

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COUNT	EVENT1	DAMCOST	INJCOST	TOTFTL	TOT DIS	PART DIS	DAYHOSP	DAYLOST	DAYREST	FLSPL	OLSPL	HYSPL
	07	15881	0	0	0	0	0	0	0	0	0	0
	07 Max	29850	0	0	0	0	0	0	0	0	0	0
	07 Min	15881	0	0	0	0	0	0	0	0	0	0
	07 Total	45731	0	0	0	0	0	0	0	0	0	0
	07 Average	22865.5	0	0	0	0	0	0	0	0	0	0
2	07 Count											
	08	4618000	1092000	17	0	0	0	0	0	5	3	3
	08	4628026	1232000	0	0	0	0	0	0	5	4	4
	08	4600000	0	0	0	0	0	0	0	2	1	1
	08	4600000	2065	0	0	0	3	4	1	1	1	1
	08	1256406	2716	0	0	0	1	6	0			
	08	1198225	0	0	0	0	0	0	0			
	08	19388	0	0	0	0	0	0	0			
	08	177237	0	0	0	0	0	0	0			
	08	446373	0	1	0	1	0	0	0			
	08	92290	1310000	0	0	0	180	0	0		1	3
	08	576137	0	0	0	0	0	0	0		3	
	08	778527	1680	0	0	0	0	0	14		4	4
	08	13134	0	0	0	0	0	0	0			
	08	13134	0	0	0	0	5	0	0	3	3	3
	08	10219706	2330	0	0	1	60	180	3	3	3	3
	08	10219706	210360	0	0	0	0	0	0			
	08	370111	0	0	0	0	0	0	0			
	08	199458	0	0	0	0	0	0	0			
	08	3697532	2200000	2	0	0	0	0	0	5	3	2
	08	1041616	0	0	0	0	0	0	0		3	
	08	922704	0	0	0	0	0	0	0		3	1
	08	922704	0	0	0	0	0	0	0			1
	08	11496	0	0	0	0	0	0	0			
	08	11432	0	0	0	0	0	0	0			
	08	922704	1415778	5	0	0	8	82	60	2	3	1
	08	922704	2585000	0	0	1	0	0	0	2	3	1
	08	84443	0	0	0	0	0	0	0			
	08	42221	0	0	0	0	0	0	0			
	08	38474	0	0	0	0	0	0	0			
	08	6459168	2200000	3	0	0	0	0	0			
	08	6453598	1100000	0	0	0	0	0	0			
	08	6615873	1018238	6	1	0	78	156	392			
	08	6600000	1650891	0	0	0	156	155	1411			
	08	0	0	0	0	0	0	0	0			
	08	200000	0	0	1	1	180	180	1411	5	4	4
	08 Max	10219706	2585000	17	1	1	180	180	1411	5	4	4
	08 Min	0	0	0	0	0	0	0	0	1	1	1
	08 Total	78972527	16023058	34	1	3	491	583	1881	28	38	28
	08 Average	2256357.914	457801.6571	0.971428571	0	0	14	17	54	3.111111111	2.714285714	2.15846154
35	08 Count											
	11	14539	0	0	0	0	0	0	0	0	0	0
	11	34966	0	0	0	0	0	0	0	0	0	0
	11	23342	0	0	0	0	0	0	0	0	0	0
	11 Max	34966	0	0	0	0	0	0	0			
	11 Min	14539	0	0	0	0	0	0	0			
	11 Total	72847	0	0	0	0	0	0	0			
3	11 Average	24282.33333	0	0	0	0	0	0	0			

COUNT	EVENT1	DAMCOST	INJCOST	TOTFTL	TOT DIS	PART DIS	DAYHOSP	DAYLOST	DAYREST	FLSPL	OLSPL	HYSPL
11 Count	0.002212389											
	12	63822	0	0	0	0	0	0	0			
	12	14912	0	0	0	0	0	0	0			
	12	0	1200	0	0	0	0	10	0			
	12	17526	0	0	0	0	0	0	0			
	12	40005	0	0	0	0	0	0	0			
	12	40385	0	0	0	0	0	0	0			
	12	49605	0	0	0	0	0	0	0			
	12	76089	0	0	0	0	0	0	0			
	12	141216	0	0	0	0	0	0	0			
	12	150864	0	0	0	0	0	0	0			
	12	92731	0	0	0	0	0	0	0			
	12	10193	0	0	0	0	0	0	0			
	12	92125	0	0	0	0	0	0	0			
	12	91830	0	0	0	0	0	0	0			
	12	103424	0	0	0	0	0	0	0			
	12	123104	0	0	0	0	0	0	0			
	12	238012	0	0	0	0	0	0	0			
	12	87301	0	0	0	0	0	0	0			
	12	43138	0	0	0	0	0	0	0			
	12	710137	0	0	0	0	0	0	0	2	1	
	12	375360	0	0	0	0	0	0	0			
	12	10000	0	0	0	0	0	0	0			
	12	42169	0	0	0	0	0	0	0			
	12	24433	0	0	0	0	0	0	0			
	12	30226	0	0	0	0	0	0	0			
	12	86175	0	0	0	0	0	0	0			
	12	57553	0	0	0	0	0	0	0			
	12	10931	0	0	0	0	0	0	0			
	12	10000	0	0	0	0	0	0	0			
	12	54000	0	0	0	0	0	0	0			
	12	24433	0	0	0	0	0	0	0			
	12	297659	0	0	0	0	0	0	0			
	12	6266399	0	0	0	0	0	0	0			
	12	33899	0	0	0	0	0	0	0			
	12	33805	0	0	0	0	0	0	0			
	12	18427	0	0	0	0	0	0	0			
	12	33979	0	0	0	0	0	0	0			
	12	187244	0	0	0	0	0	0	0			
	12	69545	0	0	0	0	0	0	0			
	12	36613	0	0	0	0	0	0	0			
	12	25302	0	0	0	0	0	0	0			
	12	114202	0	0	0	0	0	0	0			
	12	10000	0	0	0	0	0	0	0			
	12	10000	0	0	0	0	0	0	0			
	12	51238	0	0	0	0	0	0	0			
	12	25390	0	0	0	0	0	0	0			
	12	24260	0	1	0	0	0	0	0			
	12	15805010	0	0	0	0	0	0	0			
	12	562	1100000	0	0	0	0	0	0			
	12	98947	0	0	0	0	0	0	0			
	12	77120	0	0	0	0	0	0	0			
	12	10000	0	0	0	0	0	0	0			
	12	12992	0	0	0	0	0	0	0			

COUNT	EVENT1	DAMCOST	INJCOST	TOTFTL	TOT DIS	PART DIS	DAYHOSP	DAYLOST	DAYREST	FLSPL	OLSPL	HYSPL
	12	35438	1878	0	0	0	3	0	4			
	12	85846	0	0	0	0	0	0	0			
	12	85846	0	0	0	0	0	0	0			
	12	17004	0	0	0	0	0	0	0			
	12	25606	0	0	0	0	0	0	0			
	12	33477	0	0	0	0	0	0	0			
	12	52542	0	0	0	0	0	0	0			
	12	75140	0	0	0	0	0	0	0			
	12	63409	0	0	0	0	0	0	0			
	12	27640	0	0	0	0	0	0	0			
	12	63568	0	0	0	0	0	0	0			
	12	55603	0	0	0	0	0	0	0			
	12	45509	0	0	0	0	0	0	0			
	12	23578	0	0	0	0	0	0	0			
	12	11961	0	0	0	0	0	0	0			
	12	47205	0	0	0	0	0	0	0			
	12	44971	0	0	0	0	0	0	0			
	12	45413	0	0	0	0	0	0	0			
	12	178240	0	0	0	0	0	0	0			
	12	10197	0	0	0	0	0	0	0			
	12	56151	0	0	0	0	0	0	0			
	12	99598	0	0	0	0	0	0	0			
	12	10599	0	0	0	0	0	0	0			
	12	45109	0	0	0	0	0	0	0			
	12	43000	0	0	0	0	0	17	0			
	12	6600000	1370000	2	0	0	0	0	0			
	12	52045	0	0	0	0	0	0	0			
	12	152871	0	0	0	0	0	0	0			
	12	911301	0	0	0	0	0	0	0			
	12	2588575	1200	0	0	0	0	0	10			
	12	10000	0	0	0	0	0	0	0			
	12	200000	0	0	0	0	0	0	0			
	12	10000	0	0	0	0	0	0	0			
	12	10000	0	0	0	0	0	0	0			
	12	102000	0	0	0	0	0	0	0			
	12	10000	0	0	0	0	0	0	0			
	12 Max	15805010	1370000	2	0	0	3	17	10	2	4	0
	12 Min	0	0	0	0	0	0	0	0	2	1	0
	12 Total	38083734	2474278	3	0	0	3	27	14	2	5	0
	12 Average	427907.1236	27800.8764	0.033707865	0	0	0	0	0	2	2.5	0
89 12 Count												
	15	23190	0	0	0	0	0	0	0			
	15	10000	0	0	0	0	0	0	0			
	15 Max	23190	0	0	0	0	0	0	0	0	0	0
	15 Min	10000	0	0	0	0	0	0	0	0	0	0
	15 Total	33190	0	0	0	0	0	0	0	0	0	0
	15 Average	16595	0	0	0	0	0	0	0			
2 15 Count	0.001474926											
	20	60309	23752	0	0	0	22	36	0	0	0	0
	20	4720000	0	0	0	0	0	0	0	0	0	0
	20	50773	0	0	0	0	0	0	0	0	0	0
	20 Max	4720000	23752	0	0	0	22	36	0			
	20 Min	50773	0	0	0	0	0	0	0			
	20 Total	4831082	23752	0	0	0	22	36	0			

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Summary block

COUNT	EVENT1		DAMCOST	INJCOST	TOTFTL	TOT DIS	PART DIS	DAYHOSP	DAYLOST	DAYREST	FLSPL	OLSPL	HYSPL
3	20 Average	0.002212389	1610360.667	7917.333333	0	0	0	7	12	0			
20 Count	22		289019	0	0	0	0	0	0	0	0	0	0
	22 Max		289019	0	0	0	0	0	0	0	0	0	0
	22 Min		289019	0	0	0	0	0	0	0	0	0	0
	22 Total		289019	0	0	0	0	0	0	0			
1	22 Average	0.000737463	289019	0	0	0	0	0	0	0			
22 Count													

Data block

COUNT	DAMCOST	INJCOST	TOTFTL	TOT DIS	PART DIS	DAYHOSP	DAYLOST	DAYREST	FLSPL	OLSPL	HYSPL
23	33499	0	0	0	0	0	0	0	1		
23	152675	0	0	0	0	0	0	0			
23	81957	0	0	0	0	0	0	0			
23	287387	0	0	0	0	0	0	0			
23	19810	0	0	0	0	0	0	0			
23	18246	0	0	0	0	0	0	0			
23	53215	0	0	0	0	0	0	0			
23	246415	0	0	0	0	0	0	0		3	1
23	75000	0	0	0	0	0	0	0			
23	73183	0	0	0	0	0	0	0			
23	29303	0	0	0	0	0	0	0			
23	15415	0	0	0	0	0	0	0			
23	36490	0	0	0	0	0	0	0			
23	190817	0	0	0	0	0	0	0		1	
23	341141	0	0	0	0	0	0	0			
23	117432	0	0	0	0	0	0	0			
23	10000	0	0	0	0	0	0	0			
23	55366	0	0	0	0	0	0	0			
23	41669	0	0	0	0	0	0	0			
23	167819	0	0	0	0	0	0	0			
23	37085	0	0	0	0	0	0	0			
23	92290	4264	0	0	0	4	0	20			
23	51909	0	0	0	0	0	0	0			
23	161709	0	0	0	0	0	0	0			
23	83868	0	0	0	0	0	0	0			
23	14720	0	0	0	0	0	0	0			
23	93472	0	0	0	0	0	0	0			
23	25504	0	0	0	0	0	0	0			
23	19132	0	0	0	0	0	0	0			
23	362114	0	0	0	0	0	0	0			
23	49318	0	0	0	0	0	0	0			
23	133281	0	0	0	0	0	0	0			
23	39789	0	0	0	0	0	0	0			
23	173333	0	0	0	0	0	0	0			
23	76674	0	0	0	0	0	0	0			
23	103285	0	0	0	0	0	0	0			
23	106917	0	0	0	0	0	0	0			
23	272407	0	0	0	0	0	0	0			
23	19753	0	0	0	0	0	0	0			
23	10680000	480	0	0	0	0	0	4			
23	92110	0	0	0	0	0	0	0			
23	38020	0	0	0	0	0	0	0			
23	15972	0	0	0	0	0	0	0			
23	45822	0	0	0	0	0	0	0		1	3
23	332608	0	0	0	0	0	0	0	1	1	1
23	277856	0	0	0	0	0	0	0	1	1	1

COUNT	EVENT1	DAMCOST	INJCOST	TOTFTL	TOT DIS	PART DIS	DAYHOSP	DAYLOST	DAYREST	FLSPL	OLSPL	HYSPL
	23	57222	0	0	0	0	0	0	0			
	23	29635	0	0	0	0	0	0	0			
	23	151269	0	0	0	0	0	0	0			
	23	396000	0	0	0	0	0	0	0			
	23	18305	0	0	0	0	0	0	0			
	23	98026	0	0	0	0	0	0	0		2	
	23	11890	0	0	0	0	0	0	0			
	23	271582	0	0	0	0	0	0	0			
	23	73214	0	0	0	0	0	0	0			
	23	296726	0	0	0	0	0	0	0			3
	23	99620	0	0	0	0	0	0	0			
	23	78791	0	0	0	0	0	0	0			
	23	49111	0	0	0	0	0	0	0			
	23	11878	0	0	0	0	0	0	0			
	23	73123	0	0	0	0	0	0	0			
	23	162679	0	0	0	0	0	0	0			
	23	85825	0	0	0	0	0	0	0			
	23	15154	0	0	0	0	0	0	0			
	23	76401	0	0	0	0	0	0	0			
	23	446882	0	0	0	0	0	0	0		1	
	23	108623	0	0	0	0	0	0	0			
	23	122198	0	0	0	0	0	0	0			
	23	133886	0	0	0	0	0	0	0			
	23	16000	0	0	0	0	0	0	0			
	23	10000	0	0	0	0	0	0	0			
	23	10000	0	0	0	0	0	0	0			
	23	10000	0	0	0	0	0	0	0			
	23	56000	0	0	0	0	0	0	0			
	23	200000	0	0	0	0	0	0	0			
	23 Max	10680000	4264	0	0	0	4	0	20	1	3	3
	23 Min	10000	0	0	0	0	0	0	0	1	1	1
	23 Total	18615827	4744	0	0	0	4	0	24	3	10	9
75	23 Average	248211.0267	63.25333333	0	0	0	0	0	0	1	1.428571429	1.8
23 Count	0.055309735											
	24	83314	0	0	0	0	0	0	0			
	24	100000	0	0	0	0	0	0	0			
	24	68860	0	0	0	0	0	0	0			
	24	20702	0	0	0	0	0	0	0			
	24	40000	0	0	0	0	0	0	0			
	24	150000	0	0	0	0	0	0	0			
	24	250727	0	0	0	0	0	0	0			
	24	64351	0	0	0	0	0	0	0			
	24	101089	0	0	0	0	0	0	0			
	24	34569	0	0	0	0	0	0	0			
	24	274608	0	0	0	0	0	0	0			
	24	5879892	0	0	0	0	0	0	0			
	24	20572	0	0	0	0	0	0	0			
	24	153049	0	0	0	0	0	0	0			
	24 Max	5879892	0	0	0	0	0	0	0	0	0	0
	24 Min	20572	0	0	0	0	0	0	0	0	0	0
	24 Total	7241733	0	0	0	0	0	0	0	0	0	0
14	24 Average	517266.6429	0	0	0	0	0	0	0			
24 Count	0.010324484											

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COUNT	EVENT1	DAMCOST	INJCOST	TOTFTL	TOT DIS	PART DIS	DAYHOSP	DAYLOST	DAYREST	FLSPL	OLSPL	HYSPL
	25	96492	0	0	0	0	0	0	0	3		2
	25	28527	0	0	0	0	0	0	0			
	25	56394	0	0	0	0	0	0	0			
	25	140418	0	0	0	0	0	0	0	3		1
	25	27301	0	0	0	0	0	0	0			
	25	30204	0	0	0	0	0	0	0			
	25	59402	0	0	0	0	0	0	0			
	25	77595	0	0	0	0	0	0	0			
	25	55292	0	0	0	0	0	0	0			
	25	42618	0	0	0	0	0	0	0			
	25	16767	0	0	0	0	0	0	0	4		
	25	128491	0	0	0	0	0	0	0			
	25	14232	0	0	0	0	0	0	0	2		
	25	56755	0	0	0	0	0	0	0			
	25	55600	0	0	0	0	0	0	0			
	25	115304	0	0	0	0	0	0	0			
	25	35863	0	0	0	0	0	0	0			
	25	67456	0	0	0	0	0	0	0			
	25	10000	0	0	0	0	0	0	0			
	25 Max	140418	0	0	0	0	0	0	0	4	0	2
	25 Min	10000	0	0	0	0	0	0	0	2	0	1
	25 Total	1114711	0	0	0	0	0	0	0	12	0	3
19	25 Average	58669								3		1.5
25 Count	0.014011799											
	26	922704	0	0	0	0	0	0	0	0	0	0
	26 Max	922704	0	0	0	0	0	0	0	0	0	0
	26 Min	922704	0	0	0	0	0	0	0	0	0	0
	26 Total	922704	0	0	0	0	0	0	0			
1	26 Average	922704										
26 Count	0.000737463											
	28	811211	0	0	0	0	0	0	0	0	0	0
	28 Max	811211	0	0	0	0	0	0	0	0	0	0
	28 Min	811211	0	0	0	0	0	0	0	0	0	0
	28 Total	811211	0	0	0	0	0	0	0			
1	28 Average	811211										
28 Count	0.000737463											
	29	52502	0	0	0	0	0	0	0			
	29	472200	0	0	0	0	0	0	0			
	29	6551892	0	0	0	0	0	0	0			
	29	404698	0	0	0	0	0	0	0			
	29	23929	0	0	0	0	0	0	0			
	29	59928	0	0	0	0	0	0	0			
	29	187237	0	0	0	0	0	0	0	5	1	1
	29	171623	0	0	0	0	0	0	7		1	
	29	412461	840	0	0	0	0	0	0			
	29	379377	0	0	0	0	0	0	7			
	29 Max	6551892	840	0	0	0	0	0	7	5	1	1
	29 Min	23929	0	0	0	0	0	0	0	5	1	1
	29 Total	8715847	840	0	0	0	0	0	7	5	2	1
10	29 Average	8715584.7	84	0	0	0	0	0	1	5	1	1
29 Count	0.007374631											

COUNT	EVENT1	DAMCOST	INJCOST	TOTFTL	TOT DIS	PART DIS	DAYHOSP	DAYLOST	DAYREST	FLSPL	OLSPL	HYSPL
	30	922704	85595	0	0	1	5	21	14	4	1	1
	30	1156512	0	0	0	0	0	0	0			
	30	198221	432000	2	0	0	0	0	0	1	3	1
	30	922704	24655	0	0	0	37	22	105		1	1
	30	1971318	480000	2	0	0	0	0	0		2	1
	30	948158	16990	0	0	0	12	50	90		3	1
	30	349382	0	0	0	0	0	0	0			
	30	244479	341330	1	0	0	10	14	90	1	3	3
	30	17026	0	0	0	0	0	0	0			
	30	932653	3750	0	0	0	0	0	75	5	3	2
	30	27660	0	0	0	0	0	0	0		1	
	30	581216	37385	0	0	1	5	33	189			
	30	1112548	210120	0	0	0	0	0	1			
	30	922704	360	0	0	0	0	0	3	5		
	30	5879892	460000	1	0	0	0	0	0			
	30	392231	0	0	0	0	0	0	0			
	30	195317	0	0	0	0	0	0	0		1	1
	30	92290	1301772	0	1	0	2	17	7	5	1	1
	30	922704	2845000	6	0	0	0	0	7			
	30	16987	0	0	0	0	0	0	0			
	30	4778060	5776375	6	0	0	0	17	0	5	3	3
	30	156037	2470000	3	0	0	0	0	28	5	3	1
	30	5023882	3360	0	0	0	0	0	0			
	30	922704	0	0	0	0	0	0	18	3	3	3
	30	13005000	2160	4	0	0	0	0	0	5	4	2
	30	5308397	2740000	2	0	0	0	0	0	5	2	4
	30	100026	1495000	9	0	0	0	0	0	5	3	1
	30	989124	3365000	0	0	0	0	0	0		1	1
	30	933961	0	0	0	0	0	0	10	1	1	2
	30	7500000	4473	3	0	0	3	5	73	5	5	2
	30	10907500	1650908	0	0	0	3	2	0		1	5
	30	3756000	0	2	0	0	0	0	0		1	
	30	3777694	2200000	0	0	0	0	0	0	1	1	
	30	962367	0	0	0	0	0	0	0			2
	30	190817	27160	0	0	0	10	60	14		1	1
	30	89952	0	0	0	0	0	0	240			
	30	3756000	1680	0	0	0	0	0	0	3	1	
	30	4691994	162593	3	0	0	198	107	0			
	30	11973	0	1	0	0	0	0	0			
	30	956192	2470000	2	0	0	0	0	0	5		
	30	969772	460000	3	0	0	0	0	0	3		1
	30	0	2200000	0	0	0	0	0	0			
	30	932835	0	1	0	0	0	0	0	3	1	1
	30	10000	295544	0	0	0	44	0	42			
	30	4691994	1398	0	0	0	3	0	0			
	30	10000000	0	0	0	0	0	0	0			
	30	200000	0	0	0	0	0	1	0			
	30	91414	0	1	0	0	4	0	0			
	30	3697532	2289	0	1	0	0	0	21			
	30	948158	2402520	0	0	0	0	0	0			
	30	3442062	0	0	0	0	0	0	0			
	30	150000	0	0	0	0	0	0	0			
	30	541140	0	0	0	0	0	0	0			
	30	15694	0	0	0	0	0	0	0			
	30	14700	0	0	0	0	0	0	0			

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COUNT	EVENT1	DAMCOST	INJCOST	TOTFTL	TOT DIS	PART DIS	DAYHOSP	DAYLOST	DAYREST	FLSPL	OLSPL	HYSPL
	30	11500000	3405000	7	0	0	0	0	0			
	30	225014	0	0	0	0	0	0	0			
	30	850000	0	0	0	0	0	0	17			
	30	3756000	9265	0	0	0	102	17	17	1	3	2
	30	1000000	47532	6	0	0	0	0	0			
	30	5200000	2740000	2	0	0	180	0	0			
	30	190817	1370000	3	0	0	0	240	7	1		1
	30	1021305	2643880	0	0	0	3	0	59		3	1
	30	3756000	840	0	0	0	0	16	0	1	1	1
	30	73056	0	0	0	0	2	42	0	2	1	
	30	922704	15228	2	0	0	4	0	21	5	3	1
	30	221402	1370000	1	0	0	0	0	0		3	1
	30	10680000	0	2	0	0	0	0	150	5	1	2
	30	3767666	2200000	2	0	0	2	0	0		3	
	30	3831872	4384	0	0	0	0	10	28		1	
	30	91468	0	0	0	0	0	0	4	5	2	1
	30	231746	0	2	0	0	19	0	32	5		1
	30	10680000	2200000	0	0	0	0	54	0	5	1	1
	30	922704	8542	8	0	0	14	0	0			1
	30	10680000	480	2	0	0	0	30	90	1	2	2
	30	238224	2870000	4	2	0	0	0	0	5	3	
	30	2322539	1225000	0	0	0	0	0	4			
	30	123890	3628419	0	0	0	0	0	60	5	1	2
	30	4969211	0	0	0	0	35	300	12		2	
	30	200000	0	1	0	2	0	0	0	1		
	30	521025	30074	0	0	0	0	29	0		1	
	30	105306	1370000	0	0	0	0	3	21		3	1
	30	10683045	2200000	1	0	0	0	0	0	5	1	1
	30	295408	480	0	0	0	0	0	0	5		
	30	358828	0	3	0	0	0	0	0		1	
	30	922704	0	0	0	0	0	0	0	1	1	1
	30	10680000	1251010	0	0	0	0	0	0	5	2	3
	30	139509	1440	0	0	0	0	0	0			
	30	1932271	0	0	0	0	0	0	0	2	3	1
	30	92290	1520000	1	0	0	0	0	0	1		
	30	165964	12325	0	0	0	0	0	0			
	30	6600500	0	0	0	0	0	0	0			
	30	3577325	0	0	0	0	0	0	0			
	30	335195	460000	0	0	0	0	0	0			
	30	348976	0	1	0	0	0	0	0			
	30	850000	1495000	0	0	0	0	0	0			
	30	25651	0	3	0	0	0	0	0			
	30	934704	0	0	0	0	0	0	0			
	30	690277	0	0	0	0	0	0	0			
	30	95828	0	0	0	0	0	0	0			
	30	153918	0	2	0	0	0	0	0		1	1
	30	501593	2200000	0	0	0	0	0	0		1	1
	30	15539000	0	0	0	0	0	0	0	5	2	3
	30	67924	0	2	0	0	0	0	0		1	1
	30	157773	1100000	3	0	0	0	0	0			
	30	21421	2470000	9	2	2	0	0	0			
	30	850000	5776375									
30 Max		15539000	5776375	9	2	2	198	300	240	5	5	5

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COUNT	EVENT1	DAMCOST	INJCOST	TOTFTL	TOT DIS	PART DIS	DAYHOSP	DAYLOST	DAYREST	FLSPL	OLSPL	HYSPL
109	30 Min	0	0	0	4	0	0	0	0	1	1	1
30 Count	30 Total	253884605	74288316	108	4	4	697	1090	1525	128	89	70
	30 Average	2329216.56	681544.1835	0.990825688	0	0	6	10	14	3.55555556	1.893617021	1.489361702
	0.080383481											
	32	27833	0	0	0	0	0	0	0		1	1
	32	70350	0	0	0	0	0	0	0			
	32	42246	0	0	0	0	0	0	0			
	32	71053	0	0	0	0	0	0	0			
	32	59460	0	0	0	0	0	0	0			
	32	15686	0	0	0	0	0	0	0			
	32	79926	0	0	0	0	0	0	0			
	32	18122	0	0	0	0	0	0	0			
	32	38793	0	0	0	0	0	0	0			
	32	33798	0	0	0	0	0	0	0			
	32	15985	0	0	0	0	0	0	0			
	32	23217	0	0	0	0	0	0	0			
	32	48610	0	0	0	0	0	0	0			
	32	104030	10055	0	0	0	0	0	0			
	32	311252	0	0	0	0	0	9	54			
	32	91994	0	0	0	0	0	0	0			
	32	74000	0	0	0	0	0	0	0			
	32	26749	0	0	0	0	0	0	0			
	32	70000	0	0	0	0	0	0	0			
	32	16021	0	0	0	0	0	0	0			
	32	55770	0	0	0	0	0	0	0			
	32	61108	0	0	0	0	0	0	0			
	32	15519	0	0	0	0	0	0	0			
	32	25160	0	0	0	0	0	0	0			
	32	76731	0	0	0	0	0	0	0			
	32	12287	0	0	0	0	0	0	0			
	32	11071	0	0	0	0	0	0	0			
	32	25383	0	0	0	0	0	0	0			
	32	15788	0	0	0	0	0	0	0			
	32	149905	0	0	0	0	0	0	0			
	32	238244	360	0	0	0	0	0	3		1	1
	32	43458	0	0	0	0	0	0	0			
	32	129126	0	0	0	0	0	0	0			
	32	83802	0	0	0	0	0	0	0			
	32	882327	0	1	0	0	0	0	0			
	32	10730030	1100932	0	0	0	2	0	0		1	1
	32	48984	0	0	0	0	0	0	0			
	32	15156	0	0	0	0	0	0	0			
	32	35115	0	0	0	0	0	0	0			
	32	190817	0	0	0	0	0	0	0	1	1	1
	32	75327	0	0	0	0	0	0	0			
	32	622607	0	0	0	0	0	0	0			
	32	12999	0	0	0	0	0	0	0			
	32	30037	0	0	0	0	0	0	0			
	32	35461	0	0	0	0	0	0	15			1
	32	13500000	461800	1	0	0	0	0	0			
	32	105956	0	0	0	0	0	0	0			
	32	46449	0	0	0	0	0	0	0			
	32	10000	0	0	0	0	0	0	0			
	32	20647	0	0	0	0	0	0	0			

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COUNT	EVENT1	DAMCOST	INJCOST	TOTFTL	TOT DIS	PART DIS	DAYHOSP	DAYLOST	DAYREST	FLSPL	OLSPL	HYSPL
	32	30711	0	0	0	0	0	0	0			
	32	37306	0	0	0	0	0	0	0			
	32	88812	0	0	0	0	0	0	0			
	32	24820	0	0	0	0	0	0	0			
	32	130499	0	0	0	0	0	0	0			
	32	14377	0	0	0	0	0	0	0			
	32	27861	0	0	0	0	0	0	0			
	32	10000	0	0	0	0	0	0	0			
	32	25064	0	0	0	0	0	0	0			
	32	717567	0	0	0	0	0	0	0			
	32	48288	0	0	0	0	0	0	0			
	32	268662	0	0	0	0	0	0	0			
	32	22919	0	0	0	0	0	0	0			
	32	6026	19572	0	0	0	42	0	0	3	2	2
	32	33683	0	0	0	0	0	0	0			
	32	1437384	120	0	0	0	0	0	0			
	32	14048	0	0	0	0	0	0	0			
	32	10000	0	0	0	0	0	0	0			
	32	40575	0	0	0	0	0	0	0			
	32	13404	0	0	0	0	0	0	0			
	32	10000	0	0	0	0	0	0	1			
	32 Max	13500000	1100932	1	0	0	42	9	54	3	2	2
	32 Min	6026	0	0	0	0	0	0	0	1	1	1
	32 Total	31556395	1592839	2	0	0	44	9	73	4	6	7
71	32 Average	444456.2676	22434.35211	0.028169014	0	0	1	0	1	2	1.2	1.166666667
32 Count	0.052359882											
	33	11495	0	0	0	0	0	0	0			
	33	49053	0	0	0	0	0	0	0			
	33	65970	0	0	0	0	0	0	0			
	33	33768	0	0	0	0	0	0	0			
	33	107862	0	0	0	0	0	0	0			
	33	136222	0	0	0	0	0	0	0			
	33	28280	0	0	0	0	0	0	0			
	33	45156	0	0	0	0	0	0	0			
	33	168191	0	0	0	0	0	0	0			
	33	27614	0	0	0	0	0	0	0			
	33 Max	168191	0	0	0	0	0	0	0	0	0	0
	33 Min	11495	0	0	0	0	0	0	0	0	0	0
	33 Total	673611	0	0	0	0	0	0	0	0	0	0
10	33 Average	67361.1	0	0	0	0	0	0	0	#DIV/0!	#DIV/0!	#DIV/0!
33 Count	0.007374631											
	34	10247128	0	0	0	0	0	0	0			
	34	22902	19762	0	0	0	37	0	21	5	3	2
	34	98937	0	0	0	0	0	0	0			
	34	1500000	0	0	0	0	0	0	0			
	34	79240	0	0	0	0	0	0	0			
	34	64978	0	0	0	0	0	0	0			
	34	189315	0	0	0	0	0	0	0			
	34	100170	0	0	0	0	0	0	0			
	34	78067	0	0	0	1	30	0	90			
	34 Max	10918530	234780	0	0	0	0	0	0			
	34	127114	0	0	0	1	37	0	90			
	34 Max	10918530	234780	0	0	1	37	0	90	5	3	2

COUNT	EVENT1	DAMCOST	INJCOST	TOTFTL	TOT DIS	PART DIS	DAYHOSP	DAYLOST	DAYREST	FLSPL	OLSPL	HYSPL
11	34 Min	22902	0	0	0	0	0	0	0	5	3	2
	34 Total	23426381	254542	0	0	1	67	0	111	5	3	2
34 Count	34 Average 0.008112094	2129671	23140.18182	0	0	0	6	0	10	5	3	2
	35	10028403	3010000	5	0	0	0	0	0	5	5	4
	35	1923133	0	0	0	0	0	0	0			
	35	59264	0	0	0	0	0	0	0			
	35	10183200	3064	0	0	0	4	0	10	3	1	1
	35	146869	0	0	0	0	0	0	0			
	35	167924	0	0	0	0	0	0	0			
	35	15539000	0	0	0	0	0	0	0			
	35 Max	15539000	3010000	5	0	0	4	0	10	5	5	4
	35 Min	59264	0	0	0	0	0	0	0	3	1	1
	35 Total	38047793	3013064	5	0	0	4	0	10	13	6	5
7	35 Average 0.005162242	5435399	430437.7143	0.714285714	0	0	1	0	1	4.333333333	3	2.5
35 Count	36	36367	0	0	0	0	0	0	0			
	36	1500000	18300	0	0	0	14	61	34			
	36	166519	0	0	0	0	0	0	0			
	36	54901	0	0	0	0	0	0	0			
	36	27386	0	0	0	0	0	0	0			
	36	50526	0	0	0	0	0	0	0			
	36	37000	0	0	0	0	0	0	0			
	36	15528	0	0	0	0	0	0	0			
	36	10112506	1177361	1	0	0	21	159	0	5	4	3
	36	29978	0	0	0	0	0	0	0			
	36	41595	0	0	0	0	0	0	0			
	36	42376	0	0	0	0	0	0	0			
	36	13016	0	0	0	0	0	0	0			
	36	137697	0	0	0	0	0	0	0			
	36	33819	0	0	0	0	0	0	0			
	36	10000	0	0	0	0	0	0	0			
	36	62379	0	0	0	0	0	0	0			
	36	130037	0	0	0	0	0	0	0			
	36	11498	0	0	0	0	0	0	0			
	36	29644	0	0	0	0	0	0	0			
	36	64777	0	0	0	0	0	0	0			
	36	1055868	32060	0	0	0	10	56	30	1	3	3
	36	11493	0	0	0	0	0	0	0			
	36	151448	0	0	0	0	0	0	0			
	36	10966	0	0	0	0	0	0	0			
	36	51758	0	0	0	0	0	0	0			
	36	16851	0	0	0	0	0	0	0			
	36	45279	2400	0	0	0	0	0	20			
	36	25357	0	0	0	0	0	0	0			
	36	11825	0	0	0	0	0	0	0			
	36	14516	0	0	0	0	0	0	0			
	36	169494	0	0	0	0	0	0	0			
	36	18009	0	0	0	0	0	0	0			
	36	63559	0	0	0	0	0	0	0			
	36	13360	0	0	0	0	0	0	0			
	36	31074	0	0	0	0	0	0	0			
	36	13173	0	0	0	0	0	0	0			

COUNT	EVENT1	DAMCOST	INJCOST	TOTFTL	TOT DIS	PART DIS	DAYHOSP	DAYLOST	DAYREST	FLSPL	OLSPL	HYSPL
	36	22317	0	0	0	0	0	0	0			
	36	44078	0	0	0	0	0	0	0			
	36	19494	0	0	0	0	0	0	0			
	36	14148	0	0	0	0	0	0	0			
	36	88739	0	0	0	0	0	0	0			
	36	48544	0	0	0	0	0	0	0			
	36	157321	0	0	0	0	0	0	0			
	36	43535	0	0	0	0	0	0	0			
	36	11255	0	0	0	0	0	0	0			
	36	17133	0	0	0	0	0	0	0			
	36	45321	0	0	0	0	0	0	0			
	36	59539	0	0	0	0	0	0	0			
	36	16226	0	0	0	0	0	0	0			
	36	99300	0	0	0	0	0	0	0			
	36	37024	0	0	0	0	0	0	0			
	36	196895	0	0	0	0	0	0	0			
	36	26349	0	0	0	0	0	0	0			
	36	28180	0	0	0	0	0	0	0			
	36	101632	0	0	0	0	0	0	0			
	36	106028	0	0	0	0	0	0	0			
	36	11265	0	0	0	0	0	0	0			
	36	451480	0	0	0	0	0	0	0			
	36	32056	0	0	0	0	0	0	0			
	36 Max	10112506	1177361	1	0	0	21	159	34	5	4	3
	36 Min	10000	0	0	0	0	0	0	0	1	3	3
	36 Total	15989438	1230121	1	0	0	45	276	84	6	7	6
60	36 Average	266490.6333	20502.01667	0.016666667	0	0	1	5	1	3	3.5	3
36 Count	0.044247788											
	37	140450	3090	0	0	0	2	10	10	4	2	1
	37	140450	480000	2	0	0	0	0	0	5	3	3
	37	922704	0	0	0	0	0	0	0	3	5	4
	37	922704	395000	2	0	0	0	0	0	5	5	4
	37	11301843	0	2	0	0	0	0	0	5	2	1
	37	15107563	3010000	5	0	0	2	10	10	5		
	37 Max	15107563	3010000	5	0	0	2	10	10	5	5	4
	37 Min	140450	0	0	0	0	0	0	0	3	2	1
	37 Total	28535714	3888090	11	0	0	2	10	10	22	10	8
6	37 Average	4755952.333	648015	1.833333333	0	0	0	2	2	4.4	3.333333333	2.666666667
37 Count	0.004424779											
	38	104093	0	3	0	0	0	0	0	1	3	5
	38	5911210	2740000	5	0	0	0	0	0	5	3	2
	38	348844	272522	0	0	1	17	120	30	5	1	2
	38	3650593	2020000	3	0	0	0	0	0	5	3	1
	38	17010160	2200000	2	0	0	0	0	0	5	3	5
	38 Max	17010160	2740000	5	0	1	17	120	30	5	3	1
	38 Min	104093	0	0	0	0	0	0	0	1	1	10
	38 Total	27024900	7232522	13	0	1	17	120	30	21	13	2.5
5	38 Average	5404980	1446504.4	2.6	0	0	3	24	6	4.2	2.6	
38 Count	0.003687316											
	39	5879892	932	0	0	0	2	0	0	0	0	0
	39 Max	5879892	932	0	0	0	2	0	0	0	0	0
	39 Min	5879892	932	0	0	0	2	0	0			

	COUNT	EVENT1	DAMCOST	INJCOST	TOTFTL	TOT DIS	PART DIS	DAYHOSP	DAYLOST	DAYREST	FLSPL	OLSPL	HYSPL
	1	39 Total	5879892	932	0	0	0	2	0	0	0	0	0
	39 Count	39 Average	5879892	932	0	0	0	2	0	0			
		0.000737463											
		40	31523	0	0	0	0	0	0	0			
		40	21885	0	0	0	0	0	0	0			
		40	152855	0	0	0	0	0	0	0			
		40	31504	0	0	0	0	0	0	0			
		40	17077	0	0	0	0	0	0	0			
		40	94945	0	0	0	0	0	0	0			
		40	77597	0	0	0	0	0	0	0			
		40	20091	0	0	0	0	0	0	0			
		40	79437	125000	1	0	0	0	0	0			
		40	25000	1090	0	0	0	0	0	0			
		40	0	0	0	0	0	0	2	2			
		40	0	1100000	1	0	0	14	0	0			
		40	0	7456	0	0	0	0	0	0			
		40	0	0	0	0	0	16	0	0			
		40	39219	0	0	0	0	0	0	0			
		40	63427	625000	1	0	0	0	0	0			
		40	173354	0	0	1	0	0	0	0			
		40	0	0	0	0	0	0	0	0			
		40	150000	0	0	0	0	0	0	0			
		40	22900	0	0	0	0	0	0	0			
		40	69643	0	0	0	0	0	0	0			
		40	152855	0	0	0	0	0	0	0			
		40	1973901	0	0	0	0	0	0	0			
		40	85000	0	0	0	0	0	0	0			
		40	98056	0	0	0	0	0	0	0			
		40	20000	0	0	0	0	0	0	0			
		40	0	270000	1	0	0	0	0	0			
		40	426857	0	0	0	0	0	0	0			
		40	47276	0	0	0	0	0	0	40			
		40	21370	20892	0	0	0	12	28	0			
		40	0	13955	0	0	0	5	31	21			
		40	0	3918	1	0	0	3	0	0			
		40	13297	0	0	0	0	0	0	0			
		40	0	0	0	0	0	0	0	0			
		40	17134	0	0	0	0	0	0	0			
		40	46000	0	0	0	0	0	0	0			
		40	20232	12080	0	0	0	5	26	30			
		40	1018	0	0	0	0	0	0	0			
		40	28725	115000	0	0	1	8	45	14			
		40	0	7203	0	0	0	3	11	0			
		40	67239	0	0	0	0	0	0	0			
		40	358128	0	0	0	0	0	0	0			
		40	22459	0	0	0	0	2	0	7			
		40	0	10397	0	0	0	2	23	0			
		40	376000	0	0	0	0	0	0	0			
		40	39860	0	0	0	0	0	0	0			
		40	0	7922	0	0	0	17	0	0			
		40	0	172156	1	0	0	16	16	280			

COUNT	EVENT1	DAMCOST	INJCOST	TOTFTL	TOT DIS	PART DIS	DAYHOSP	DAYLOST	DAYREST	FLSPL	OLSPL	HYSPL
	40	0	41491	0	0	0	16	13	243			
	40	240024	0	0	0	0	0	0	0			
	40	106791	0	0	0	0	0	0	0			
	40	0	0	0	0	0	6	147	0			
	40	133737	127330	1	0	0	5	0	0			
	40	4765	2895	0	0	0	0	1	21			
	40	0	0	0	0	0	0	0	0			
	40	29756	0	0	0	0	6	10	0			
	40	0	19896	0	0	0	5	36	30			
	40	0	6580	0	0	0	15	10	0			
	40	1235	36240	0	0	0	0	30	150			
	40	12108	0	0	0	0	0	0	0			
	40	58309	0	0	0	0	2	0	0			
	40	62576	0	0	0	0	0	10	150			
	40	0	22682	0	0	0	0	0	0			
	40	75848	0	0	0	0	0	0	0			
	40	192835	0	0	0	0	0	0	0			
	40	619933	0	0	0	0	0	0	0			
	40	70000	0	0	0	0	0	0	0			
	40	10000	0	0	0	0	0	0	0			
	40	220755	0	0	0	0	0	2	10			
	40	169535	0	0	0	0	0	0	0			
	40	0	1950	0	0	0	0	1	0			
	40	10000	0	0	0	0	16	0	30			
	40	0	750	0	0	0	17	0	0			
	40	0	11056	0	0	0	0	0	0			
	40	10000	0	1	1	1	0	0	0			
	40 Max	1973901	1100000	1	1	1	17	147	280	0	0	0
	40 Min	0	0	0	0	0	0	0	0			
	40 Total	6914071	2762939	7	1	1	172	442	1028	0	0	0
79 / 40 Count	40 Average 0.058259587	87519.88608	34973.91139	0.088607595	0	0	2	6	13	0	0	0
	44	512578	0	0	0	0	0	0	0			
	44	25145	0	0	0	0	0	0	0			
	44	84578	0	0	0	0	0	0	0			
	44	145135	0	0	0	0	0	0	0			
	44	23790	0	0	0	0	0	0	0			
	44	401290	1680	0	0	0	0	0	14			
	44	11600000	0	0	0	0	0	0	14			
	44 Max	11600000	1680	0	0	0	0	0	14	0	0	0
	44 Min	23790	0	0	0	0	0	0	0			
	44 Total	12792516	1680	0	0	0	0	0	14	0	0	0
7 / 44 Count	44 Average 0.005162242	1827502.286	240	0	0	0	0	0	2	0	0	0
	46	12743	0	0	0	0	0	0	0		0	2
	46	1416210	4800	0	0	0	0	0	40		0	2
	46 Max	1416210	4800	0	0	0	0	0	40	0	0	2
	46 Min	12743	0	0	0	0	0	0	0	0	0	2
	46 Total	1428953	4800	0	0	0	0	0	40	0		
2 / 46 Count	46 Average 0.001474926	714476.5	2400	0	0	0	0	0	20			

COUNT	EVENT1	DAMCOST	INJCOST	TOTFTL	TOT DIS	PART DIS	DAYHOSP	DAYLOST	DAYREST	FLSPL	OLSPL	HYSPL
	47	18640	0	0	0	0	0	0	0			
	47	69042	0	0	0	0	0	0	0			
	47	70434	0	0	0	0	0	0	0			
	47	71459	0	0	0	0	0	0	0			
	47	74652	0	0	0	0	0	0	0			
	47	17458	0	0	0	0	0	0	0			
	47	16306	0	0	0	0	0	0	0			
	47	78328	0	0	0	0	0	0	0			
	47	11660	0	0	0	0	0	0	0			
	47	78450	0	0	0	0	0	0	0			
	47	88765	0	0	0	0	0	0	0			
	47	24299	0	0	0	0	0	0	0			
	47	86336	0	0	0	0	0	0	0			
	47	83605	0	0	0	0	0	0	0			
	47	24299	0	0	0	0	0	0	0			
	47	11848	0	0	0	0	0	0	0			
	47	43138	0	0	0	0	0	0	0			
	47	53045	0	0	0	0	0	0	0			
	47	83519	0	0	0	0	0	0	0			
	47	11214	0	0	0	0	0	0	0			
	47	49396	0	0	0	0	0	0	0			
	47	26526	0	0	0	0	0	0	0			
	47	11214	0	0	0	0	0	0	0			
	47	43010	0	0	0	0	0	0	0			
	47	23114	0	0	0	0	0	0	0			
	47	568210	0	0	0	0	0	0	0			
	47	10000	0	0	0	0	0	0	0			
	47	10000	0	0	0	0	0	0	0			
	47	26737	0	0	0	0	0	0	0			
	47	30857	0	0	0	0	0	0	0			
	47	102454	0	0	0	0	0	0	0			
	47	15413	0	0	0	0	0	0	0			
	47	70302	0	0	0	0	0	0	0			
	47 Max	568210	0	0	0	0	0	0	0	0	0	0
	47 Min	10000	0	0	0	0	0	0	0	0	0	0
	47 Total	2003730	0	0	0	0	0	0	0	0	0	0
33	47 Average 0.024336283	60719.09091	0	0	0	0	0	0	0			
47 Count												
	48	922704	3664	0	0	0	4	0	15		1	1
	48	4691994	0	0	0	0	0	0	0			
	48	1146885	7902	0	0	0	2	2	51	1	1	1
	48	398053	0	0	0	0	0	0	0			
	48	923860	7622	0	0	0	2	6	37	1	2	1
	48 Max	4691994	7902	0	0	0	4	6	51	1	2	2
	48 Min	398053	0	0	0	0	0	0	0	1	1	1
	48 Total	8083496	19188	0	0	0	8	8	103	1	4	2
5	48 Average 0.003687316	1616699.2	3837.6	0	0	0	2	2	21	1	1.333333333	1
48 Count												
	49	13592	0	0	0	0	0	0	0			
	49	17770	0	0	0	0	0	0	0			
	49	18499	0	0	0	0	0	0	0			
	49	25160	0	0	0	0	0	0	0			
	49	60000	0	0	0	0	0	0	0			

Summary statistics:

COUNT	EVENT1	DAMCOST	INJCOST	TOTFTL	TOT DIS	PART DIS	DAYHOSP	DAYLOST	DAYREST	FLSPL	OLSPL	HYSPL
	49	20000	0	0	0	0	0	0	0	0	0	0
	49	10508	0	0	0	0	0	0	0	0	0	0
	49	16399	0	0	0	0	0	0	0			
	49 Max	60000	0	0	0	0	0	0	0	0	0	0
	49 Min	10508	0	0	0	0	0	0	0			
	49 Total	181928	0	0	0	0	0	0	0			
8	49 Average	22741	0	0	0	0	0	0	0			
49 Count	0.005899705											

EVENT1	DAMCOST	INJCOST	TOTFTL	TOT DIS	PART DIS	DAYHOSP	DAYLOST	DAYREST	FLSPL	OLSPL	HYSPL
50	30031	0	0	0	0	0	0	0			
50	923874	43000	1	0	1	0	17	0			
50	43437	0	0	0	0	0	0	0			
50	28576	0	0	0	0	0	0	0			
50	10918	0	0	0	0	0	0	0			
50	349309	0	0	0	0	0	0	0			3
50	23709	0	0	0	0	0	0	0			
50	1708759	0	0	0	0	0	0	0	5	3	
50	231904	0	0	0	0	0	0	0			
50	20550	0	0	0	0	0	0	0			
50	28100	0	0	0	0	0	0	0			
50	24278	0	0	0	0	0	0	0			
50	926784	127000	1	0	1	0	0	0	2	2	1
50	103289	0	0	0	0	30	90	60			
50	11276	0	0	0	0	0	0	0			
50	59003	24201	0	0	0	6	21	104		2	
50	1500000	0	0	0	0	0	0	0			
50	15510	0	0	0	0	0	0	0			
50	29853	0	0	0	0	0	0	0			
50	69759	0	0	0	0	0	0	0			
50	11502	0	0	0	0	0	0	0			
50	66149	0	0	0	0	0	0	0			
50	999275	75526	0	0	0	36	110	100			1
50	49138	0	0	0	0	0	0	0			
50	11086	0	0	0	0	0	0	0			
50	32126	0	0	0	0	0	0	0			
50	23641	0	0	0	0	0	0	0			
50	34636	0	0	0	0	0	0	0			
50	10000000	0	0	0	0	0	0	0	4	3	3
50	32211	0	0	0	0	0	0	0			
50	71883	0	0	0	0	0	0	0			
50	200000	0	0	0	0	0	0	0			
50	101462	0	0	0	0	0	0	0			
50	253060	0	0	0	0	0	0	0			
50	3756000	135844	0	0	0	9	194	410	4		1
50	227400	0	0	0	0	0	0	0		2	2
50	1500000	210000	0	0	0	7	21	59	5		1
50	28612	0	0	0	0	0	0	0			
50	39988	0	0	0	0	0	0	0			
50	35919	0	0	0	0	0	0	0			
50	266031	0	0	0	0	0	0	0			
50	10546	0	0	0	0	0	0	0			
50	16854	0	0	0	0	0	0	0			
50	29396	0	0	0	0	0	0	0			
50	23470	0	0	0	0	0	0	0			

COUNT	EVENT1	DAMCOST	INJCOST	TOTFTL	TOT DIS	PART DIS	DAYHOSP	DAYLOST	DAYREST	FLSPL	OLSPL	HYSPL
	50	40148	0	0	0	0	0	0	0			
	50	31081	0	0	0	0	0	0	0			
	50	40036	0	0	0	0	0	0	0			
	50	277348	0	0	0	0	0	0	0			
	50	12500	0	0	0	0	0	0	0			
	50	14237	0	0	0	0	0	0	0			
	50	23944	0	0	0	0	0	0	0			
	50	359312	0	0	0	0	0	0	0			
	50	14205	0	0	0	0	0	0	0			
	50	53688	0	0	0	0	0	0	0			
	50	29626	0	0	0	0	0	0	0			
	50	38898	0	0	0	0	0	0	0			
	50	14299	0	0	0	0	0	0	0			
	50	162344	0	0	0	0	0	0	0			
	50	48959	0	0	0	0	0	0	0			
	50	122607	750	0	0	0	0	2	0			
	50	10887414	15423	0	0	0	3	33	0		1	1
	50	101254	0	0	0	0	0	0	0			
	50	12601	0	0	0	0	0	0	0			
	50	71426	0	0	0	0	0	0	0			
	50	13664	0	0	0	0	0	0	0			
	50	177525	0	0	0	0	0	0	0			
	50	97409	0	0	0	0	0	0	0			
	50	36997	0	0	0	0	0	0	0			
	50	163227	0	0	0	0	0	0	0			
	50	460995	0	0	0	0	0	0	0			
	50	54925	0	0	0	0	0	0	0			
	50	520197	0	0	0	0	0	0	0			
	50	25295	0	0	0	0	0	0	0			
	50	26974	0	0	0	0	0	0	0			
	50	90415	0	0	0	0	0	0	0			
	50	44606	0	0	0	0	0	0	0			
	50	230864	0	0	0	0	0	0	0			
	50	32612	0	0	0	0	0	0	0			
	50	130965	0	0	0	0	0	0	0			
	50	169808	0	0	0	0	0	0	0			
	50	13292	0	0	0	0	0	0	0			
	50	26942	0	0	0	0	0	0	0			
	50	33840	0	0	0	0	0	0	0			
	50	49451	0	0	0	0	0	0	0			
	50	35104	0	0	0	0	0	0	0			
	50	14320	0	0	0	0	0	0	0			
	50	10680000	0	0	0	0	0	0	0			
	50	97614	20532	0	0	0	0	0	0			
	50	10765004	1100000	1	0	0	7	22	66	4	2	1
	50	254415	0	0	0	0	0	0	0			
	50	58830	0	0	0	0	0	0	0			
	50	102000	0	0	0	0	0	0	0			
	50	107865	0	0	0	0	0	0	0			
	50	41793	0	0	0	0	0	0	0			
	50	17196	0	0	0	0	0	0	0			
	50	135815	0	0	0	0	0	0	0			
	50	93968	0	0	0	0	0	0	0			
	50	266079	0	0	0	0	0	0	0			
	50	64258	0	0	0	0	0	0	0			

COUNT	EVENT1	DAMCOST	INJCOST	TOTFTL	TOT DIS	PART DIS	DAYHOSP	DAYLOST	DAYREST	FLSPL	OLSPL	HYSPL
	50	32006	0	0	0	0	0	0	0			
	50	51422	0	0	0	0	0	0	0			
	50	34064	0	0	0	0	0	0	0			
	50	487794	0	0	0	0	0	0	0			
	50	11277	0	0	0	0	0	0	0			
	50	98938	0	0	0	0	0	0	0			
	50	26139	0	0	0	0	0	0	0			
	50	17292	0	0	0	0	0	0	0			
	50	109393	0	0	0	0	0	0	0			
	50	56007	0	0	0	0	0	0	0			
	50	30978	0	0	0	0	0	0	0			
	50	148976	0	0	0	0	0	0	0			
	50	17920	0	0	0	0	0	0	0			
	50	42762	0	0	0	0	0	0	0			
	50	30521	0	0	0	0	0	0	0			
	50	176858	0	0	0	0	0	0	0			
	50	118485	0	0	0	0	0	0	0			
	50	13592	0	0	0	0	0	0	0			
	50	51097	0	0	0	0	0	0	0			
	50	16955	0	0	0	0	0	0	0			
	50	180056	0	0	0	0	0	0	0			
	50	38332	0	0	0	0	0	0	0			
	50	67101	0	0	0	0	0	0	0			
	50	26200	0	0	0	0	0	0	0			
	50	52188	0	0	0	0	0	0	0			
	50	67864	0	0	0	0	0	0	0			
	50	17760	0	0	0	0	0	0	0			
	50	13340	0	0	0	0	0	0	0			
	50	792308	36888	0	0	0	33	42	48			1
	50	34800	0	0	0	0	0	0	0			
	50	10000	0	0	0	0	0	0	0			
	50	119348	0	0	0	0	0	0	0			
	50	78237	0	0	0	0	0	0	0			
	50	354412	0	0	0	0	0	0	0			
	50	51740	0	0	0	0	0	0	0			
	50	57212	7912	0	0	0	2	4	44			
	50	6250000	35310	0	0	0	5	44	119			1
	50	9605754	0	0	0	0	0	0	0			
	50	34714	0	0	0	0	0	0	0			
	50	38699	0	0	0	0	0	0	0			
	50	13368	0	0	0	0	0	0	0			
	50	35130	0	0	0	0	0	0	0			
	50	85764	0	0	0	0	0	0	0			
	50	18398	0	0	0	0	0	0	0			
	50	44342	0	0	0	0	0	0	0			
	50	75678	0	0	0	0	0	0	0			
	50	228440	0	0	0	0	0	0	0			
	50	575436	0	0	0	0	0	0	0			
	50	49876	0	0	0	0	0	0	0			
	50	86632	0	0	0	0	0	0	0			
	50	49098	0	0	0	0	0	0	0			
	50	182993	0	0	0	0	0	0	0			
	50	1970824	0	0	0	0	0	0	0			
	50	113860	0	0	0	0	0	0	0			
	50	37010	0	0	0	0	0	0	0			

COUNT	EVENT1	DAMCOST	INJCOST	TOTFTL	TOT DIS	PART DIS	DAYHOSP	DAYLOST	DAYREST	FLSPL	OLSPL	HYSPL
	50	28031	0	0	0	0	0	0	0			
	50	360643	0	0	0	0	0	0	0			
	50	40346	0	0	0	0	0	0	0			
	50	139725	0	0	0	0	0	0	0			
	50	1196722	0	0	0	0	0	0	0			
	50	46764	0	0	0	0	0	0	0			
	50	149457	0	0	0	0	0	0	0			
	50	152580	0	0	0	0	0	0	0			
	50	12561	0	0	0	0	0	0	0			
	50	17219	0	1	0	0	0	0	0			
	50	6498665	1104066	8	0	0	1	0	30	5	2	1
	50	6874690	4215000	0	0	0	0	0	0	5	3	2
	50	16422	0	0	0	0	0	0	0			
	50	160152	0	0	0	0	0	0	0			
	50	179000	0	0	0	0	0	0	0			
	50	10000	0	0	0	0	0	0	0			
	50	14140	0	0	0	0	0	0	0			
	50	15539000	0	0	0	0	0	0	0			
	50	10000	0	0	0	0	0	0	0			
	50	2924975	0	0	0	0	0	0	0		1	1
	50	168544	0	0	0	0	0	0	0			
	50	10000	0	0	0	0	0	0	0			
	50	10000	0	0	0	0	0	0	0			
	50	10000	0	0	0	0	0	0	0			
	50	27000	0	0	0	0	0	0	0			
	50	93000	0	0	0	0	0	0	0			
	50 Max	15539000	4215000	8	0	1	36	194	410	5	3	3
	50 Min	10000	0	0	0	0	0	0	0	2	1	1
	50 Total	119212028	7151452	12	0	2	139	600	1040	34	21	20
182	50 Average	655011.1429	39293.69231	0.065934066	0	0	1	3	6	4.25	2.1	1.428571429
50 Count	0.13421828289											
	51	124295	0	0	0	0	0	0	0	1	1	1
	51	966744	762000	3	0	0	0	0	0	5	3	1
	51	141740	163855	0	0	2	51	60	246	1		
	51	88390	0	0	0	0	0	0	0			
	51	984138	2470000	8	0	0	0	0	0	5	3	3
	51	192260	0	0	0	0	0	0	0			2
	51	37734	0	0	0	0	0	0	0			
	51	193778	2325000	3	0	0	15	45	28	5	3	1
	51	4616589	1128975	1	0	0	0	0	0	1	1	
	51	430865	0	0	0	0	0	0	0			1
	51	25878	0	0	0	0	0	0	0			
	51	43641	0	0	0	0	0	0	0		3	
	51	10004000	0	0	0	0	0	0	0	4	3	1
	51	53764	0	0	0	0	0	0	0			
	51	10300000	2200000	2	0	0	0	0	0	5	3	3
	51	19877	0	0	0	0	14	15	30		3	1
	51	274755	1115749	1	0	0	0	0	0	1	2	1
	51	92290	0	0	0	0	0	0	0			
	51	29303	0	0	0	0	0	0	0			
	51	948588	3360	2	0	0	0	0	28	5	3	1
	51	10035285	2200000	0	0	0	0	0	0		3	2
	51	975173	720	0	0	0	0	0	6			
	51	11192	0	0	0	0	0	0	0			

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Table columns: COUNT | EVENT1 | DAMCOST | INJCOST | TOTFTL | TOT DIS | PART DIS | DAYHOSP | DAYLOST | DAYREST | FLSPL | OLSPL | HYSPL

COUNT	EVENT1	DAMCOST	INJCOST	TOTFTL	TOT DIS	PART DIS	DAYHOSP	DAYLOST	DAYREST	FLSPL	OLSPL	HYSPL
	51	5751771	52537	0	0	0	22	83	93	5	3	3
	51	22675	0	0	0	0	0	0	0	4	2	
	51	159398	2200000	2	0	0	0	0	0			
	51	295004	0	0	0	0	0	0	0			
	51	640072	0	0	0	0	0	0	0			
	51	49096	0	0	0	0	0	0	0			
	51	113438	1112648	1	0	0	3	30	0			
	51	191822	0	0	0	0	0	0	0			
	51	434736	0	0	0	0	0	0	0			
	51	353477	1518	0	0	0	3	0	1	2		
	51	203293	0	0	0	0	0	0	0			
	51	102154	0	0	0	0	3	0	0			
	51	121432	0	0	0	0	0	0	0			
	51	171669	0	4	0	0	0	0	0	5	4	3
	51	10098317	2740000	0	0	0	0	0	0	5		
	51	137693	0	0	0	0	0	0	0	3	2	1
	51	8497802	0	2	0	0	0	0	0			
	51	851000	1100000	0	0	0	0	0	0			
	51	19633	0	0	0	0	0	0	0			1
	51	2018973	0	0	0	0	0	0	0			
	51	38039	0	0	0	0	0	0	0			
	51	568094	0	0	0	1	0	3	2	3	2	3
	51	3983699	211515	0	0	0	24	168	810			
	51	6656970	174984	8	0	2	0	0	0	5	4	1
	51	10000	0	0	0	3	51	168	810	1	1	26
	51 Max	10300000	2740000	8	0	2	51	168	810	5	4	3
	51 Min	10000	0	0	0	0	0	0	0	1	1	1
	51 Total	82080536	19962861	29	0	3	132	404	1244	60	41	26
48 / 51 Count	51 Average 0.03539823	1710011.167	415892.9375	0.604166667	0	0	3	8	26	3.529411765	2.5625	1.625
	52	10683000	2965	0	0	0	0	5	7	0	0	0
	52 Max	10683000	2965	0	0	0	0	5	7	0	0	0
	52 Min	10683000	2965	0	0	0	0	5	7	0	0	0
	52 Total	10683000	2965	0	0	0	0	5	7	0	0	0
1 / 52 Count	52 Average 0.000737463			0	0	0	0	5	7	0	0	0
	54	60400	0	0	0	0	0	0	0			
	54	42690	0	0	0	0	0	0	0			
	54	64623	0	0	0	0	0	0	0			
	54	67023	0	0	0	0	0	0	0			
	54	1100000	0	0	0	0	0	0	0			
	54	23104	0	0	0	0	0	0	0			
	54	14701	0	0	0	0	0	0	0			
	54	16818	0	0	0	0	0	0	0			
	54	25247	0	0	0	0	0	0	0			
	54	36007	0	0	0	0	0	0	0			
	54	37453	0	0	0	0	0	0	0			
	54	17512	0	0	0	0	0	0	0			
	54	33840	0	0	0	0	0	0	0			
	54	11300	0	0	0	0	0	0	0			
	54	44657	0	0	0	0	0	0	0			
	54	17309	0	0	0	0	0	0	0			
	54	19606	0	0	0	0	0	0	0			

COUNT	EVENT1	DAMCOST	INJCOST	TOTFTL	TOT DIS	PART DIS	DAYHOSP	DAYLOST	DAYREST	FLSPL	OLSPL	HYSPL
	54	17064	0	0	0	0	0	0	0	0	0	0
	54	16157	0	0	0	0	0	0	0	0	0	0
	54	10000	0	0	0	0	0	0	0	0	0	0
	54 Max	1100000	0	0	0	0	0	0	0			
	54 Min	10000	0	0	0	0	0	0	0			
	54 Total	1675511	0	0	0	0	0	0	0			
	54 Average	83775.55	0									
20	54 Count	0.014749263										
	55	190817	0	0	0	0	0	0	0		1	1
	55	407568	0	0	0	0	0	0	0		3	
	55	56115	0	0	0	0	0	0	0			1
	55	92290	0	0	0	0	0	0	0		2	
	55	84192	0	0	0	0	0	0	0	5		1
	55	1500000	0	0	0	0	0	0	0		4	
	55	1200000	0	0	0	0	0	0	0			1
	55	92290	5040	0	0	0	0	0	42		1	1
	55	92790	0	0	0	0	0	0	0		1	
	55	92290	600	0	0	0	0	17	5			1
	55	92735	0	0	0	0	0	0	0			
	55	250820	0	0	0	0	0	0	0		3	1
	55	607309	0	0	0	0	0	0	0	1	2	1
	55 Max	1500000	5040	0	0	0	0	17	42	5	4	1
	55 Min	56115	0	0	0	0	0	0	0	1	1	1
	55 Total	4759216	5640	0	0	0	0	17	47	6	17	7
	55 Average	366093.5385	433.8461538	0	0	0	0	1	4	3	2.125	1
13	55 Count	0.009587021										
	57	1532658	4930	0	0	0	0	19	34		1	1
	57	28476	0	0	0	0	0	0	0			
	57	22037	0	0	0	0	0	0	0			
	57	13742	0	0	0	0	0	0	0			
	57	41327	0	0	0	0	0	0	0			
	57	19077	0	0	0	0	0	19	34	0	1	1
	57 Max	1532658	4930	0	0	0	0	19	34	0	1	1
	57 Min	13742	0	0	0	0	0	0	0	0	1	1
	57 Total	1657317	4930	0	0	0	0	3	6		1	
6	57 Average	276219.5	821.6666667	0	0	0	0					
	57 Count	0.004424779										
	58	28064	0	0	0	0	0	0	0			
	58	48295	0	0	0	0	0	0	0			
	58	91291	0	0	0	0	0	0	0			
	58	53271	0	0	0	0	0	0	0			
	58	20134	0	0	0	0	0	0	0			
	58	43670	0	0	0	0	0	0	0			
	58	25013	0	0	0	0	0	0	0			
	58	23958	0	0	0	0	0	0	0			
	58	97718	0	0	0	0	0	0	0			
	58	27243	0	0	0	0	0	0	0			
	58	54250	0	0	0	0	0	0	0			
	58	17694	0	0	0	0	0	0	0			
	58	603109	0	0	0	0	0	0	0			
	58	472177	0	0	0	0	0	0	0			
	58	116115	0	0	0	0	0	0	0			

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COUNT	EVENT1	DAMCOST	INJCOST	TOTFTL	TOT DIS	PART DIS	DAYHOSP	DAYLOST	DAYREST	FLSPL	OLSPL	HYSPL
	58	121744	0	0	0	0	0	0	0			
	58	55392	0	0	0	0	0	0	0			
	58	49985	0	0	0	0	0	0	0			
	58	34160	0	0	0	0	0	0	0			
	58	10000	0	0	0	0	0	0	0			
	58	85000	0	0	0	0	0	0	0			
	58	10000	0	0	0	0	0	0	0			
	58	46949	0	0	0	0	0	0	0			
	58	99732	0	0	0	0	0	0	0			
	58	71000	0	0	0	0	0	0	0			
	58	185441	0	0	0	0	0	0	0			
	58	135417	0	0	0	0	0	0	0			
	58	53394	0	0	0	0	0	0	0			
	58	43561	0	0	0	0	0	0	0			
	58	163090	0	0	0	0	0	0	0			
	58	53320	0	0	0	0	0	0	0			
	58	22399	0	0	0	0	0	0	0			
	58	62376	0	0	0	0	0	0	0			
	58	107820	0	0	0	0	0	0	0			
	58	50575	0	0	0	0	0	0	0			
	58	59942	0	0	0	0	0	0	0			
	58	200000	0	0	0	0	0	0	0			
	58	69751	0	0	0	0	0	0	0			
	58	10000	0	0	0	0	0	0	0	0	0	0
	58	175992	0	0	0	0	0	0	0	0	0	0
	58	10000	0	0	0	0	0	0	0	0	0	0
	58	200000	0	0	0	0	0	0	0			
	58	10000	0	0	0	0	0	0	0			
44	58 Max	603109										
58 Count	58 Min	10000										
	58 Total	3929042										
	58 Average	89296.40909										
	0.032448378											
	60	52680	0	0	0	0	0	0	0			
	60	185889	0	0	0	0	0	0	0			
	60	157072	0	0	0	0	0	0	0			
	60	673718	11080	0	0	0	2	19	348	1	1	1
	60	122829	1682	0	0	0	2	2	0			
	60	18148	0	0	0	0	0	0	0			1
	60	256393	0	0	0	0	0	0	0			
	60	35208	0	0	0	0	0	0	0			
	60	92290	0	0	0	0	0	0	0			
	60	184452	0	0	0	0	0	0	0			
	60	110026	0	4	0	1	0	0	0			
	60	10000000	2855000	0	0	0	0	0	0			
	60	70379	0	0	0	0	0	0	0			
	60	266071	0	0	0	0	0	0	0			
	60	14490	0	0	0	0	0	0	0			
	60	124782	0	0	0	0	0	0	0			
	60	103178	0	0	0	0	0	0	0			
	60	259476	0	0	0	0	0	0	0			
	60	141956	0	0	0	0	0	0	0			
	60	45214	0	0	0	0	0	0	0			

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COUNT	EVENT1	DAMCOST	INJCOST	TOTFTL	TOT DIS	PART DIS	DAYHOSP	DAYLOST	DAYREST	FLSPL	OLSPL	HYSPL
	60	92290	11662	0	0	0	7	0	70		1	1
	60	13597	0	0	0	0	0	0	0			
	60	10000	0	0	0	0	0	0	0			
	60	159725	0	0	0	0	0	0	0			
	60	158454	0	0	0	0	0	0	0			
	60	39113	0	0	0	0	0	0	0			
	60	34564	0	0	0	0	0	0	0			
	60	81644	0	0	0	0	0	0	0			
	60	655500	0	0	0	0	0	0	0			
	60	62465	0	0	0	0	0	0	0			
	60	23448	0	0	0	0	0	0	0			
	60	10000	0	0	0	0	0	0	0			
	60	10000	0	0	0	0	0	0	0			
	60	200000	0	0	0	0	0	0	0			
	60	187436	0	0	0	0	0	0	0			
	60	23384	0	0	0	0	0	0	0			
	60	168724	0	0	0	0	0	0	0			
	60	158798	0	0	0	0	0	0	0			
	60	177081	0	0	0	0	0	0	0			
	60	122584	0	0	0	0	0	0	0			
	60	100759	0	0	0	0	0	0	0			
	60	200000	0	0	0	0	0	0	0			
	60	200000	0	0	0	0	0	0	0			
	60 Max	10000000	2855000	4	0	1	7	19	348	1	1	1
	60 Min	10000	0	0	0	0	0	0	0	1	1	1
	60 Total	15803817	2879424	4	0	1	11	21	418	1	2	3
	60 Average 0.031710914	367530.6279	66963.34884	0.093023256	0	0	0	0	10	1	1	1
43	60 Count											
	61	998503	12270	0	0	0	14	17	63	5	2	1
	61	98718	0	0	0	0	0	0	0	3		
	61	468945	0	0	0	0	0	0	0			
	61	192735	0	0	0	0	0	0	0			
	61 Max	998503	12270	0	0	0	14	17	63	5	2	1
	61 Min	98718	0	0	0	0	0	0	0	3		
	61 Total	1758901	12270	0	0	0	14	17	63	8	2	1
	61 Average 0.00294985	439725.25	3067.5	0	0	0	4	4	16	4	2	1
4	61 Count											
	63	21000	0	0	0	0	0	0	0	0	0	0
	63	263089	0	0	0	0	0	0	0	0	0	0
	63	31409	0	0	0	0	0	0	0	0	0	0
	63 Max	263089	0	0	0	0	0	0	0	0	0	0
	63 Min	21000	0	0	0	0	0	0	0	0	0	0
	63 Total	315498	0	0	0	0	0	0	0	0	0	0
	63 Average 0.002212389	105166	0	0	0	0	0	0	0	0	0	0
3	63 Count											
	64	72575	0	0	0	0	0	0	0	0	0	0
	64	924766	531120	0	1	1	0	18	0	3	0	0
	64	67507	0	0	0	0	0	0	0	0	0	0
	64	44518	0	0	0	0	0	0	0	0	0	0
	64	18841	0	0	0	0	0	0	0	0	0	0
	64	61536	0	0	0	0	0	0	0	5	0	0
	64	2857048	0	0	0	0	0	0	0			

COUNT	EVENT1	DAMCOST	INJCOST	TOTFTL	TOT DIS	PART DIS	DAYHOSP	DAYLOST	DAYREST	FLSPL	OLSPL	HYSPL
	64	32823	0	0	0	0	0	0	0			
	64	78858	0	0	0	0	0	0	0			
	64	98037	0	0	0	0	0	0	0			
	64	51124	0	0	0	0	0	0	0			
	64	15381	0	0	0	0	0	0	0			
	64	10000	0	0	0	0	0	0	0			
	64	140118	0	0	0	0	0	0	0			
	64	42555	0	0	0	0	0	0	0			
	64	59266	0	0	0	0	0	0	0			
	64	52728	0	0	0	0	0	0	0			
	64	67566	0	0	0	0	0	0	0			
	64	49034	0	0	0	0	0	0	0			
	64	27956	22440	0	0	0	0	0	187			
	64	136551	0	0	0	0	0	0	0			
	64	10680000	38190	0	0	0	15	48	90	2	2	
	64	38847	0	0	0	0	0	0	0			
	64	11631	0	0	0	0	0	0	0			
	64	54257	0	0	0	0	0	0	0			
	64	11126	0	0	0	0	0	0	0			
	64	13061	0	0	0	0	0	0	0			
	64	374451	17410	0	0	0	10	30	0			
	64	35233	0	0	0	0	0	0	0	3		
	64	1934172	420000	0	0	2	60	300	360	5	2	
	64	948158	120	0	0	0	0	0	1			1
	64	24830	0	0	0	0	0	0	0			
	64	17988	0	0	0	0	0	0	0			
	64	27431	0	0	0	0	0	0	0			
	64	43304	0	0	0	0	0	0	0			
	64	14044	0	0	0	0	0	0	0			
	64	100943	891	0	0	0	1	1	0	4		
	64	165067	0	0	0	0	0	0	0			
	64	16919	0	0	0	0	0	0	0			
	64	10000	0	0	0	0	0	0	0			
	64	320611	3600	0	0	0	0	0	30	5	1	
	64	326426	0	0	0	0	0	0	0			
	64	454266	19341	0	0	0	26	68	0			
	64	53410	0	0	0	0	0	0	0			
	64	64239	0	0	0	0	0	0	0			
	64	57021	0	0	0	0	0	0	0			
	64	14086	0	0	0	0	0	0	0			
	64	14086	0	0	0	0	0	0	0			
	64	14086	0	0	0	0	0	0	0			
	64	1181928	0	0	0	0	0	0	0		1	
	64	47515	0	0	0	0	0	0	0			
	64	45381	0	0	0	0	0	0	0			
	64	14594	0	0	0	0	0	0	0			
	64	14594	0	0	0	0	0	0	0			
	64	39746	0	0	0	0	0	0	0			
	64	30192	0	0	0	0	0	0	0			
	64	10000	0	0	0	0	0	0	0			
	64	922704	28005	0	0	0	19	82	244			
	64	68357	0	0	0	0	0	0	0			
	64	72762	0	0	0	0	0	0	0			
	64	18086	0	0	0	0	0	0	0			
	64	14500	0	0	0	0	0	0	0			

COUNT	EVENT1	DAMCOST	INJCOST	TOTFTL	TOT DIS	PART DIS	DAYHOSP	DAYLOST	DAYREST	FLSPL	OLSPL	HYSPL
63	64	1000000	20825	2	0	0	0	51	0	5	2	1
	64 Max	10680000	531120	2	1	2	60	300	360	2	1	1
	64 Min	10000	0	0	0	0	0	0	0	27	6	1
	64 Total	24228840	1101942	2	1	3	131	598	912	3.857142857	1.5	1
64 Count	64 Average 0.046460177	384584.7619	17491.14286	0.031746032	0	0	2	9	14			
	66	13354	0	0	0	0	0	0	0			
	66	11424	0	0	0	0	0	0	0			
	66	22713	0	0	0	0	0	0	0	0	0	0
	66	11154	0	0	0	0	0	0	0	0	0	0
	66	13093	0	0	0	0	0	0	0	0	0	0
	66 Max	22713	0	0	0	0	0	0	0			
	66 Min	11154	0	0	0	0	0	0	0			
	66 Total	71738	0	0	0	0	0	0	0			
5 66 Count	66 Average 0.003687316	14347.6	0	0	0	0	0	0	0			
	68	67171	0	0	0	0	0	0	0			
	68	20662	0	0	0	0	0	0	0			
	68 Max	67171	0	0	0	0	0	0	0	0	0	0
	68 Min	20662	0	0	0	0	0	0	0	0	0	0
	68 Total	87833	0	0	0	0	0	0	0	0	0	0
2 68 Count	68 Average 0.001474926	43916.5	0	0	0	0	0	0	0			
	69	73474	0	0	0	0	0	0	0			
	69 Max	73474	0	0	0	0	0	0	0	0	0	0
	69 Min	73474	0	0	0	0	0	0	0	0	0	0
	69 Total	73474	0	0	0	0	0	0	0	0	0	0
1 69 Count	69 Average 0.000737463	73474	0	0	0	0	0	0	0			
	70	5694993	2460040	10	2	5	19	0	5	5	5	4
	70	189679	373000	1	0	1	0	0	0		2	1
	70	370000	0	0	0	0	0	0	0			
	70	370450	0	0	0	0	0	0	0			
	70	67795	0	0	0	0	0	0	0			
	70	925919	14650	0	0	0	26	4	50	5	3	1
	70	74351	0	0	0	0	0	0	0			
	70	80630	0	0	0	0	0	0	0			
	70	81828	0	0	0	0	0	0	0			
	70	40124	0	0	0	0	0	0	0			
	70	84160	0	0	0	0	0	0	0			
	70	74697	0	0	0	0	0	0	0			
	70	80647	0	0	0	0	0	0	0			
	70	179690	0	0	0	0	0	0	0			
	70	64601	0	0	0	0	0	0	0			
	70	67300	0	0	0	0	0	0	0			
	70	54284	0	0	0	0	0	0	0			
	70	70819	0	0	0	0	0	0	0			
	70	76231	0	0	0	0	0	0	0			
	70	92990	0	0	0	0	0	0	0			
	70	934482	2506966	3	0	0	21	60	39	5	3	2
	70	20532	0	0	0	0	0	0	0	5		

COUNT	EVENT1	DAMCOST	INJCOST	TOTFTL	TOT DIS	PART DIS	DAYHOSP	DAYLOST	DAYREST	FLSPL	OLSPL	HYSPL
	70	237884	0	0	0	0	0	0	0		1	
	70	64610	0	0	0	1	0	0	0		1	
	70	92290	239128	0	0	0	8	57	70			
	70	426698	0	0	0	0	0	0	0			
	70	316236	4723	0	0	0	3	5	10			
	70	7216000	151793	0	0	0	88	141	468			
	70	113678	0	0	0	0	0	0	0			
	70	85318	0	0	0	0	0	0	0			
	70	62076	0	0	0	0	0	0	0			
	70	3483	32331	0	0	0	51	3	62			
	70	115983	0	0	0	0	0	0	0			
	70	92290	0	0	0	0	0	0	0			
	70	59988	0	0	0	0	0	0	0		1	
	70	100770	2825	0	0	0	0	1	20			
	70	10000000	3061	0	0	0	1	3	11			3
	70	12843	0	0	0	0	0	0	0			
	70	928064	1680	0	0	0	0	0	14			
	70	190817	0	0	0	0	0	0	0			
	70	922704	2825	0	0	0	0	7	0			
	70	922704	34425	0	0	0	0	85	0			
	70	785000	7225	0	0	0	0	17	0			
	70	23263	0	0	0	0	0	0	0			
	70	176956	0	0	0	0	0	0	0			
	70	126900	0	0	0	0	0	0	0			
	70	58084	0	0	0	0	0	0	0			
	70	922704	5380	0	0	0	0	0	6		1	
	70	10720425	4775	0	0	0	10	7	15		1	1
	70	46275	0	0	0	0	0	7	0			
	70	87225	0	0	0	0	0	0	0			
	70	155000	0	0	0	0	0	0	0			
	70	79049	0	0	0	0	0	0	0			
	70	22753	0	0	0	0	0	0	0			
	70	6103081	24574	2	0	0	9	44	14	5	2	2
	70	34865	0	0	0	0	0	0	0			
	70	127668	0	0	0	0	0	0	0			
	70	92290	64010	0	0	0	10	107	120		1	
	70	40191	0	0	0	0	0	0	7			
	70	88736	1590	0	0	0	0	2	0			
	70	77097	0	0	0	0	2	0	0			
	70	26939	0	0	0	0	0	0	0			
	70	17982	0	0	0	0	0	0	0			
	70	140263	0	0	0	0	0	0	0			
	70	89760	0	0	0	0	0	0	0			
	70	3713739	2200000	0	0	0	0	0	0	5	3	3
	70	83580	0	0	0	0	0	0	0			
	70	123252	0	0	0	0	0	0	0			
	70	154624	0	0	0	0	0	0	0			
	70	89784	0	0	0	0	0	0	0			
	70	90464	0	0	0	0	0	0	0			
	70	50109	0	0	0	0	0	0	0			
	70	189626	0	0	0	0	0	0	0			
	70	653901	240	0	0	0	0	0	2	3		
	70	93347	0	0	0	0	0	0	0			
	70	53937	0	0	0	0	0	0	0			
	70	92290	75474	0	0	0	14	194	0		1	1

COUNT	EVENT1	DAMCOST	INJCOST	TOTFTL	TOT DIS	PART DIS	DAYHOSP	DAYLOST	DAYREST	FLSPL	OLSPL	HYSPL
	70	1525000	14042	0	0	0	2	30	3	4		
	70	853588	0	0	0	0	0	0	0			
	70	72056	0	0	0	0	0	0	0			
	70	72381	0	0	0	0	0	0	0			
	70	73675	0	0	0	0	0	0	0			
	70	119024	0	0	0	0	0	0	0			
	70	59086	0	0	0	0	0	0	0			
	70	55662	0	0	0	0	0	0	0			
	70	78305	0	0	0	0	0	0	0			
	70	112791	720	0	0	0	0	0	6		1	
	70	28314	0	0	0	0	0	0	0			
	70	56455	0	0	0	0	0	0	7			
	70	383681	840	0	0	0	0	0	0			
	70	303754	33319	0	0	0	9	73	0			1
	70	153154	0	0	0	0	0	0	0			
	70	998981	0	0	0	0	0	0	0			
	70	128172	0	0	0	0	0	0	0			
	70	28314	0	0	0	0	0	0	0			
	70	302866	0	0	0	0	0	0	0			
	70	54920	0	0	0	0	0	0	0			
	70	110498	0	0	0	0	0	0	0			
	70	10000	0	0	0	0	0	0	0			
	70	474277	0	0	0	0	0	0	0			
	70	90739	0	0	0	0	0	0	0			
	70	577509	0	0	0	0	0	0	0			
	70	6723508	2740000	4	0	0	0	0	0	5	3	2
	70	122329	0	0	0	0	0	0	0			1
	70	85899	0	0	0	0	0	0	0			
	70	6755253	1370000	2	0	0	0	0	0	3	2	1
	70	579129	0	0	0	0	0	0	0			
	70	100568	0	0	0	0	0	0	0			
	70	109008	0	0	0	0	0	0	0			
	70	67576	0	0	0	0	0	0	0			
	70	301625	2530	0	0	0	0	2	14	3		1
	70	50522	0	0	0	0	0	0	0			
	70	181977	0	0	0	0	0	0	0			
	70	37844	0	1	0	0	0	0	0			
	70	952428	1213788	1	0	0	168	90	0	5	1	1
	70	922704	0	0	0	0	0	0	0			
	70	109911	0	0	0	0	0	0	0			
	70	937404	0	2	2	5	0	0	0	5	2	1
	70	193000	0	0	0	0	0	0	0			
	70	66875	0	0	3	7	0	0	0			
	70	344498	0	0	0	0	0	0	0			
	70	75630	0	0	0	0	0	0	0			
	70	10000	0	0	0	0	0	0	0			
	70 Max	10720425	2740000	10		5	168	194	468	5	5	4
	70 Min	3483	0	0		0	0	0	0	3	1	1
123	70 Total	82542687	13585954	25		7	439	932	943	58	34	25
70 Count	70 Average 0.090707965	671078.7561	110454.9106	0.203252033		0	4	8	8	4.461538462	1.888888889	1.666666667
	71	145613	0	0	0	0	0	0	0			
	71	148520	0	0	0	0	0	0	0		1	
	71	207727	0	0	0	0	0	0	0			

COUNT	EVENT1	DAMCOST	INJCOST	TOTFTL	TOT DIS	PART DIS	DAYHOSP	DAYLOST	DAYREST	FLSPL	OLSPL	HYSPL
	71	58000	0	0	0	0	0	0	0	0	1	0
	71 Max	207727	0	0	0	0	0	0	0	0	1	0
	71 Min	58000	0	0	0	0	0	0	0	0	1	0
	71 Total	569860	0	0	0	0	0	0	0		1	
4	71 Average 0.002949853	139965									1	
71 Count												
	73	38106	0	0	0	0	0	0	0	0	0	0
	73	22993	0	0	0	0	0	0	0	0	0	0
	73	12865	0	0	0	0	0	0	0	0	0	0
	73 Max	38106	0	0	0	0	0	0	0			
	73 Min	12865	0	0	0	0	0	0	0			
	73 Total	73964	0	0	0	0	0	0	0			
3	73 Average 0.002212389	24654.66667	0	0	0	0	0	0	0			
73 Count												
	76	922704	48915	0	0	0	29	73	519			2
	76	68412	0	0	0	0	0	0	0			
	76	64245	0	0	0	0	0	0	0			
	76	689600	0	0	0	0	1	0	60			
	76	2131785	7666	0	0	0	0	0	0			
	76	18411	0	0	0	0	0	0	0			
	76	56671	0	0	0	0	0	0	0			
	76	51410	0	0	0	0	0	0	0			
	76	125718	960	0	0	0	0	0	8			
	76 Max	2131785	48915	0	0	0	29	73	519	0	0	2
	76 Min	18411	0	0	0	0	0	0	0	0	0	2
	76 Total	4128956	57541	0	0	0	30	73	587	0	0	2
9	76 Average 0.006637168	458772.8889	6393.444444	0	0	0	3	8	65			2
76 Count												
	77	4204192	94830	0	0	0	110	89	770	5	3	3
	77	190817	255620	0	0	1	37	60	90			
	77	4601000	4635	0	0	0	0	5	23		3	1
	77	171863	0	0	0	0	0	0	0			
	77	251756	720	0	0	0	0	0	6			
	77	102242	0	0	0	0	0	0	0			
	77	187792	23341	0	0	0	1	61	0	1	1	1
	77	3756000	0	0	0	0	0	0	0			
	77	190817	0	0	0	0	0	0	0			
	77	29526	0	0	0	0	0	0	0			
	77	190817	0	0	0	0	0	0	0			
	77	190817	0	0	0	0	0	0	0			
	77	145709	44465	0	0	0	10	49	164	5	1	1
	77	1306000	0	0	0	1	0	0	0		1	
	77	3771069	213078	0	0	0	3	0	14			
	77	169174	0	0	0	0	0	0	0			
	77	190817	118604	0	0	0	44	180	180	5	4	4
	77	1220841	5142	2	0	0	2	2	28	5		1
	77	190817	2200000	0	0	0	0	0	0			4
	77	6143967	0	0	0	0	0	0	0			1
	77	169973	0	0	0	0	0	0	0			
	77	3769775	2200000	2	0	1	110	180	770	5	4	4
	77 Max	6143967	2200000	0	0	0	110	180	770	5	4	1
	77 Min	29526	0	0	0	0	0	0	0	1	1	1

COUNT	EVENT1	DAMCOST	INJCOST	TOTFTL	TOT DIS	PART DIS	DAYHOSP	DAYLOST	DAYREST	FLSPL	OLSPL	HYSPL
22	77 Total	31145781	2960435	2	0	2	207	446	1275	26	10	13
77 Count	77 Average 0.016224189	1415717.318	134565.2273	0.090909091	0	0	9	20	58	4.333333333	2	1.625
	78	41580	0	0	0	0	0	0	0			
	78	20104	0	0	0	0	0	0	0			
	78	81986	0	0	0	0	0	0	0			
	78	163319	0	0	0	0	0	0	0	0	0	0
	78 Max	163319	0	0	0	0	0	0	0	0	0	0
	78 Min	20104	0	0	0	0	0	0	0	0	0	0
	78 Total	306989	0	0	0	0	0	0	0			
4	78 Average 0.002949853	7674.25	0	0	0	0	0	0	0			
78 Count												
	80	43107	0	0	0	0	0	1	1			
	80	3442062	1104130	1	0	0	5	0	15	5	3	1
	80	192316	0	0	0	0	0	0	0			
	80	54249	0	0	0	0	0	0	0			
	80	969196	89890	0	1	0	15	140	195	5	3	2
	80	4600000	783358	1	0	0	53	6	59		3	
	80	140686	0	0	0	0	0	17	0			
	80	187616	0	0	0	0	0	0	0			
	80	1500000	1100000	1	0	0	0	0	0	5	2	
	80	34101	0	0	0	0	0	0	0			1
	80	6298517	1780315	5	1	2	248	98	442	5	1	
	80	31615	0	0	0	0	0	0	0			
	80	25209	0	0	0	0	0	0	0			
	80	981812	2865000	4	0	0	0	0	4	5	2	2
	80	92290	480	0	0	0	0	0	0		2	1
	80	948158	0	0	0	0	0	0	0		3	2
	80	744544	0	0	0	0	0	0	40			
	80	10000000	4800	0	0	0	0	0	7	1	3	1
	80	247853	840	0	0	0	0	0	30			
	80	967146	3600	0	0	0	0	0	0			2
	80	11212	0	0	0	0	0	0	0			
	80	25348	0	0	0	0	0	0	0			
	80	138471	0	0	0	0	0	0	0			
	80	23742	0	0	0	0	0	0	0			
	80	54067	0	0	0	0	0	0	0			
	80	16632795	92886	0	0	0	21	60	480	5	2	2
	80	552538	1125	0	0	0	0	3	0	5	3	1
	80	6604397	0	0	0	0	0	0	0	1	1	12
	80 Max	16632795	2865000	5	1	2	248	140	480	5	24	1.5
	80 Min	11212	0	0	0	0	0	0	0	1	2.4	
	80 Total	55555599	7826424	12	2	2	342	325	1273	26		
29	80 Average 0.021386431	1915710.31	269876.6897	0.413793103	0	0	12	11	44	4.333333333		
80 Count												
	81	60000	0	0	0	0	0	0	0	0	0	0
	81 Max	60000	0	0	0	0	0	0	0	0	0	0
	81 Min	60000	0	0	0	0	0	0	0	0	0	0
	81 Total	60000	0	0	0	0	0	0	0			
1	81 Average 0.000737463	60000	0	0	0	0	0	0	0			
81 Count												

COUNT	EVENT1	DAMCOST	INJCOST	TOTFTL	TOT DIS	PART DIS	DAYHOSP	DAYLOST	DAYREST	FLSPL	OLSPL	HYSPL
	82	11410	0	0	0	0	0	0	0			
	82	16696	0	0	0	0	0	0	0			
	82	13534	0	0	0	0	0	0	0			
	82	20609	0	0	0	0	0	0	0			
	82	13807	2200000	2	0	0	0	0	0	5	3	1
	82	968233	0	0	0	0	0	0	0			
	82	91888	0	0	0	0	0	0	0			
	82	64067	0	0	0	0	0	0	0			
	82	16314	0	2	0	0	0	0	0			
	82	10000	0	0	0	0	0	0	0			
	82 Max	968233	2200000	2	0	0	0	0	0	5	3	1
	82 Min	10000	0	0	0	0	0	0	0	5	3	1
	82 Total	1226538	2200000	2	0	0	0	0	0	5	3	1
10	82 Average	122653.8	220000	0.2	0	0	0	0	0	5	3	1
82 Count	0.007374631											
	84	10202757	80635	0	0	0	20	73	337			1
	84	37500	0	0	0	0	0	0	0			
	84	128956	0	0	0	0	0	0	0			
	84	29817	0	0	0	0	0	0	0			
	84	106740	0	0	0	0	0	0	0			
	84	10000	0	0	0	0	0	0	0			
	84 Max	10202757	80635	0	0	0	20	73	337	0	0	1
	84 Min	10000	0	0	0	0	0	0	0	0	0	1
	84 Total	10515770	80635	0	0	0	20	73	337	0	0	1
6	84 Average	1752628.333	13439.16667	0	0	0	3	12	56	0	0	1
84 Count	0.004424779											
	85	325000	0	0	0	0	0	0	0			
	85	30522	0	0	0	0	0	0	0			
	85	74356	0	0	0	0	0	0	0			
	85	21008	0	0	0	0	0	0	0		1	
	85	353670	0	0	0	0	0	0	0			
	85	68647	0	0	0	0	0	0	0			
	85	900752	0	0	0	0	0	0	0			
	85	10000	0	0	0	0	0	0	0			
	85	69900	0	0	0	0	0	0	0			
	85	65771	0	0	0	0	0	0	0			
	85 Max	900752	0	0	0	0	0	0	0	0	1	0
	85 Min	10000	0	0	0	0	0	0	0	0	1	0
	85 Total	1920626	0	0	0	0	0	0	0	0	1	0
10	85 Average	192062.6	0	0	0	0	0	0	0			
85 Count	0.007374631											
	86	105302	0	0	0	0	0	0	0			
	86	49970	0	0	0	0	0	0	0			
	86	150000	0	0	0	0	0	0	0			
	86	99348	0	0	0	0	0	0	0			
	86 Max	150000	0	0	0	0	0	0	0	0	0	0
	86 Min	49970	0	0	0	0	0	0	0	0	0	0
	86 Total	404620	0	0	0	0	0	0	0	0	0	0
4	86 Average	101155	0	0	0	0	0	0	0			
86 Count	0.002949853											

COUNT	EVENT1	DAMCOST	INJCOST	TOTFTL	TOT DIS	PART DIS	DAYHOSP	DAYLOST	DAYREST	FLSPL	OLSPL	HYSPL
	88	193731	0	0	0	0	0	0	0			
	88 Max	193731	0	0	0	0	0	0	0	0	0	0
	88 Min	193731	0	0	0	0	0	0	0	0	0	0
	88 Total	193731	0	0	0	0	0	0	0	0	0	0
1	88 Average	193731	0	0	0	0	0	0	0			
88 Count	0.000737463											
	89	594009	0	0	0	0	0	0	0			
	89 Max	594009	0	0	0	0	0	0	0	0	0	0
	89 Min	594009	0	0	0	0	0	0	0	0	0	0
	89 Total	594009	0	0	0	0	0	0	0	0	0	0
1	89 Average	594009	0	0	0	0	0	0	0			
89 Count	0.000737463											
	91	26478835	3840000	5	0	0	0	0	0	5	5	4
	91	10000	0	0	0	0	0	0	0			
	91 Max	26478835	3840000	5	0	0	0	0	0	5	5	4
	91 Min	10000	0	0	0	0	0	0	0	5	5	4
	91 Total	26488835	3840000	5	0	0	0	0	0	5	5	4
2	91 Average	13244417.5	1920000	2.5	0	0	0	0	0	5	5	4
91 Count	0.001474926											
	93	16540	0	0	0	0	0	0	0			
	93	131025	0	0	0	0	0	0	0			
	93 Max	131025	0	0	0	0	0	0	0	0	0	0
	93 Min	16540	0	0	0	0	0	0	0	0	0	0
	93 Total	147565	0	0	0	0	0	0	0	0	0	0
2	93 Average	73782.5	0	0	0	0	0	0	0			
93 Count	0.001474926											
	94	52876	0	0	0	0	0	0	0			
	94	128686	0	0	0	0	0	0	0			
	94 Max	128686	0	0	0	0	0	0	0	0	0	0
	94 Min	52876	0	0	0	0	0	0	0	0	0	0
	94 Total	181562	0	0	0	0	0	0	0	0	0	0
2	94 Average	90781	0	0	0	0	0	0	0			
94 Count	0.001474926											
	Grand Average	810960.9425	128701.9336	0.204277286	0.008849558	0.022123894	2.277286136	4.544247788	9.718289086	3.693430657	2.098837209	1.616766467
	Grand Total	1099663038	174519822	277	12	30	3088	6162	13178	506	361	270
	Grand Min	0	0	0	0	0	0	0	0	1	1	1
	Grand Max	26478835	5776375	17	2	5	248	300	1411	5	5	5

Appendix E: Hazard Severity Calculations

General: This appendix displays the data used for the hazard severity calculations described in Chapter Three and Presented in Chapter Four. In order to establish the severity of a hazard$_i$, the severities of all the accidents that were a result of hazard$_i$ were summed up in the following manner.

$$\text{Severity of Hazard}_i = \sum_{j-1}^{94} P(\text{Accident}_j \mid \text{Hazard}_i) * \text{Severity (Accident}_j)$$

To determine the conditional probability that Accident$_i$ occurred given that Hazard$_j$ occurred, $P(\text{Accident}_i \mid \text{Hazard}_j)$, the database had to be manipulated. A primary hazard was associated with each accident. Once the hazards and accidents were organized into a matrix format each conditional probability could be accessed. To verify that these probabilities were correct the law of total probability was. By viewing the sample space, S (Hazard$_j$), as a union of mutually exclusive subsets the law of total probability states:

S $= B_1 \cup B_2 \cup ... \cup B_k$ where $P(B_j) > 0$, for i = 1,2,...,k and $B_i \cap B_j = \varnothing$ for i $\neq$ j.
Then for any event A

$$P(A) = \sum_{j=1}^{k} P(B_j)P(A|B_j).$$ (Wackerly, 1995; p.61)

Where,
$P(A|B_i) = P(\text{Accident}_i \mid \text{Hazard}_j)$
$P(B_i) = P(\text{Hazard}_j)$ (directly available from the database)
$P(A) = P(\text{Accident}_i)$ (directly available from the database)

Once these probabilities were confirmed the severity of each hazard was computed as shown in this appendix.

The table below represents P(accident | occurred | hazard j was a contributing factor to an accident)=

times hazard St contributed to event xi

times hazard St contributed to any accident

Event Number	SH1	SH2	SH3	SH4	SH5	SH6	SH7	SH8	SH9	SH10	SH11	SH12	SH13	SH14	SH15	SH16	SH17	SH18	SH19	SH20	SH21	SH97	SH98	SH99	Accident Severity Score
event(01)																								0.006601	0.035312
event(02)		0.047619	0.023256																						0.034494
event(03)																									0.000359
event(04)				0.006944		0.006579															0.005102	0.004348		0.0033	0.023698
event(05)							0.005319									0.003597					0.005102	0.004348		0.006601	0.004491
event(06)											0.007576											0.004348			0.027179

This chart is P(accident I occurred | hazard j was a contributing factor to an accident)* Accident Severity

Each column is added to give the total Hazard Severity in the bottom row.

Event Number	SIN1	SIN2	SIN3	SIN4	SIN5	SIN6	SIN7	SIN8	SIN9	SI10	SI11	SI12	SI13	SI14	SI15	SI16	SI17	SI18	SI19	SI20	SI21	SI97
event(01)			0.000821201			0.00023231	0.000018783		0.0004179				0.00107005					0.000257749	0.000592385			1.82947E-06	1.55903E-06
event(02)		0.001682						0.0005544					0.000052669									
event(03)				2E-04																	2.49527E-05	2.1264E-05
event(04)				2E-04	0.000015591											1.75926E-05						
event(05)							2.60155E-05		2.894E-05													3.99836E-07
event(06)								2.485E-06													3.99836E-07	0.00068349B
event(07)			0.00365592			0.000206848	0.00063619	0.0042488	0.0027906		8.95683E-07					0.005654641		0.004589915	0.003082443		0.003208257	7.9285E-07
event(08)				0.003		1.1394E-06	9.5973E-07				0.003572831			0.001952635	0.000346039	0.000961489		1.33073E-06		0.001856208	9.30151E-07	0.001597953
event(11)		0.000796		1E-06			0.00029747	0.000903	0.0020759		0.000685918	0.003712417	0.000759358					0.000609704	0.000982699			
event(12)			0.000777018	0.001	0.0010778	0.00054954					0.000689672								0.000892516			0.000197906
event(15)						0.00015061	0.00048424		0.0005367													
event(20)																						
event(22)	0.001055		0.000688682	0.002	0.00190469	0.00126268	0.0018069	0.000798	0.0006115		0.000447384			0.000191736	0.0021153035	8.23497E-05	0.002684304	0.000658451			0.000829573	0.000770278
event(23)			0.001542	4E-04		0.00014032	0.00011345		0.0002524		0.00031533		0.000646306	0.000830965		0.000306879		0.000845728	0.000416198			9.27308E-05
event(24)					0.00029451		4.1563E-05	0.00016534	8.1103E-05		0.000276661		8.91653E-05	0.000237138		3.28411E-05	0.000237496		1.30201E-05		4.659O7E-05	9.92372E-05
event(25)													0.000660039									
event(28)		0.002058	0.001005032	0.001		0.00113727	0.00022987	0.002336	0.0005114		0.000564794		0.030365508	0.007808163	0.050010376	0.000777273	0.003928763	0.000315448			0.000651475	0.000375795
event(29)	0.014315		0.001642745	0.014	0.00646442	0.01977725	0.01599012	0.0162494	0.0094868	0.015416116	0.0124746031			0.000280443	0.001349633	0.022347822	0.018219046	0.035108234	0.019564799	0.044535445	0.027607432	0.007842111
event(30)	0.001542	0.001028	0.001506567	0.002	0.00278634	0.00012786	0.00160807	0.00011672	0.0015333	0.0003322173	0.000981551		6.91653E-06	0.002647999	4.15016E-05	0.001475457	0.000981551	0.000945728	0.002117071	0.002399347	0.002644178	0.000934875
event(32)				9E-06	2.142E-05	2.1843E-05	1.4128E-05		3.929E-06						2.38858E-06		3.01836E-05		1.30201E-05		3.38789E-06	5.77414E-06
event(33)				4E-04							0.00041333			0.001513142		0.000419108		0.000425226				0.001013148
event(34)				4E-06							0.002609552		0.007628656	0.002236759								0.002246464
event(35)					0.0011064	0.000112082	0.00027366		0.0008118		0.001948775		0.00077951	0.002872605		0.000246751		0.000125177			8.7496E-05	0.000969304
event(36)	0.001225			2E-04					0.0018634		0.002385698			0.004089768					0.00617474B			0.00410755
event(37)				0.003	0.01236864		0.00203951									0.004137712		0.002798744	0.007518196			0.003334156
event(38)																						
event(39)			0.002190046	7E-04	0.0015189	0.00232332	0.00112706	0.0031815	0.0025075	0.000603667	0.003032053		0.001783561	0.001223013	0.000860958	0.000508122	0.001103108		0.000923255	0.002615889	0.000720704	0.00122833
event(40)			0.000686032	2E-04	0.00095159	0.00031382	0.0007973						0.00044696			0.000318339						
event(44)			0.001402216						0.0007136												0.000615258	
event(46)		6.55E-05		3E-05					4.88E-05												1.40259E-05	5.37863E-05
event(47)					3.6172E-05			3.715E-05	0.0007629		3.123955E-05			3.57023E-05	8.59087E-05	3.4610E-05	0.000124958	4.01326E-05	0.00257972		7.5010E-06	
event(48)	0.009209		0.002998292	0.003	0.00415992	0.0008482	0.00274312									0.000927529		0.00094107			0.004067251	0.001875488
event(49)								0.0049965	0.0029171		0.002334211	0.010270529		0.00040015	0.001925724	0.005874152	0.005602107	0.004048238	0.00966638	0.005847019	0.004135134	0.003523853
event(50)	0.008603	0.011738	0.005501584	0.005	0.000198784	0.00668123	0.00426118		0.00047958						0.008442565	0.09971806		0.014769695	0.0025486648			
event(51)		0.019297	0.009424259	0.005		0.00622084	0.00502961	0.0003209			8.99444E-05	0.001319185	0.000178689	0.0006615762		0.000736586		8.66618E-05			6.05746E-05	0.000103241
event(52)			0.004762116			0.00134716	0.00108921		0.000403	0.001746212			0.000471796	0.000884445		4.27074E-05		0.00149129			0.000347461	0.000296097
event(54)	0.004864	0.003243		2E-04		0.00001263	0.00181123	0.0003209	0.0005528							0.001469833						0.00027077
event(55)	0.002224			9E-04	0.00089608			0.0008416								1.44524E-05					0.00057365	
event(57)								4.755E-05			3.04376E-05			0.000277349	0.001334743	0.001229115		0.000467647	0.000418743		0.000435834	0.000649962
event(58)		0.002661	0.000993297	7E-04	0.00066889	0.0004215	0.00124955	0.0011544	0.0008846	0.002737933	0.000647148				0.001164198	0.000402025		0.0010957l6		0.06200068	0.000028511
event(60)			0.00259914	4E-04	0.00180263	0.00036764	0.0008917			0.00143286						2.66001E-05						0.000405906
event(61)				7E-05	0.00023854																	
event(63)								0.0008147		0.001545839	0.000865088			0.000391479	0.000627997	0.002493916	0.004110526	0.003080394	0.000591056		0.001384157	0.000917422
event(64)	0.002153	0.001435	0.00210306	0.002	0.000097238	0.00027641	0.0024051	0.0002748								0.000527891		0.000222609	0.000199329		5.18683E-05	4.41991E-05
event(66)				7E-05						5.817I5E-05	4.0746JE-10					0.000109703		3.92593E-10			2.74414E-10	
event(68)									1.118E-09								8.58598E-09				9.63732E-10	
event(69)		1E-09		1E-09	6.09936E-09				0.0024173							6.79466E-10				0.01432682	0.003670796	0.010910726
event(70)	0.004169		0.001357202	0.001	0.00191973	0.00191973	0.0012417	0.0031546		0.002992805	0.000739903	0.021221708		0.008337099	0.002431654	0.000419864	0.002652713	0.002555899	0.002288616			3.07142E-05
event(71)				3E-05				5.06E-05	8.36E-05		0.000160552		0.000214069			2.5411E-05						
event(73)				3E-05	0.00064366		1.9918E-05	0.0013221	0.0002895				0.000741181			6.73495E-06		0.001428261	0.000059175		0.002381325	0.000312687
event(76)			0.005427206	0.002	0.00752806	0.00153533	0.00248266		0.0048331	0.002091921	0.004419883		0.003535907	0.000961554	0.002430936	0.00125919		0.001703429			2.31499E-05	0.000405806
event(77)				3E-04					0.0002889				0.007814629	0.000502369	0.002688279	0.00231909		0.000941178			0.001973593	0.000446918
event(78)	0.00921	0.01228			0.00041594	0.00339319	0.00411515				0.000976829											
event(80)													0.00063322	0.0005276				0.000305055				0.00109024
event(81)					0.00027495						0.000655972		0.001311943	0.000562261	0.000901961	0.000155734		0.000632031				
event(82)				3E-04									0.000401652	0.000344273					0.000259892			0.000115257
event(84)									7.843E-05					0.000404302				0.000113618			7.9416AE-05	6.76766E-05
event(85)			0.000751196													0.000130467						
event(91)						0.00019292	0.00019266				0.002466623			2.32529E-07	3.73015E-07	0.00117202					0.001661196	0.0001157695
event(93)											6.59943E-06											1.55693E-07
event(94)																						
Hazard Severity	0.05877	0.056283	0.073625832	0.051	0.05003211	0.05605238	0.0541843	0.0435053	0.0479799	0.04940987	0.049074531	0.042368548	0.055968794	0.046927051	0.017007882	0.067180833	0.038541656	0.079702329	0.063986499	0.076789787	0.058752913	0.054876563

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Appendix F: Accident Severity Data

General: This data set represents the unweighted/weighted value scores and the unweighted/weighted utility scores for each measure. The raw scores were evaluated using the value and utility functions that were developed in Chapter Three and presented in Chapter Four.

EVENT1	DAMCOST	Unweighted Score	DAMCOST Utility	Weighted Score	INJCOST	Unweighted Score	INJCOST Utility	Weighted Score	TOTFTL	Score	Weighted Score	TOTAL DISABILITY	Score	Weighted Score	PARTIAL DISABILITY	Score	Weighted Score
	0	0	0	0	340	5.50366E-07	1.28495E-07	6.039E-09	1	0.5	0.176	0	0	0	0	0	0
01	11523	2.83208E-09	1.84372E-09	4.3488E-10	0	0	0	0	0	0	0	0	0	0	0	0	0
01	30206	2.23774E-08	1.45601E-08	3.4362E-09	0	0	0	0	0	0	0	0	0	0	0	0	0
01	12440	3.21173E-09	2.08975E-09	4.9316E-10	0	0	0	0	0	0	0	0	0	0	0	0	0
01	59688	3.49222E-07	2.27225E-07	5.3625E-08	0	0	0	0	0	0	0	0	0	0	0	0	0
02	248086	0.131208255	0.090048053	0.02125134	0	0	0	0	0	0	0	0	0	0	0	0	0
03	125256	0.00013785	8.95988E-05	2.1169E-05	0	0	0	0	0	0	0	0	0	0	0	0	0
03	120685	9.08946E-05	5.91437E-05	1.3958E-05	0	0	0	0	0	0	0	0	0	0	0	0	0
03	14640	4.26398E-09	2.77376E-09	6.5461E-10	0	0	0	0	0	0	0	0	0	0	0	0	0
04	10697	2.51632E-09	1.63721E-09	3.8638E-10	13885	2.99137E-05	6.9814E-06	3.2813E-07	0	0	0	0	0	0	0	0	0
05	24179	1.22777E-08	7.98644E-09	1.8853E-09	755	1.23287E-06	2.8772E-07	1.3523E-08	0	0	0	0	0	0	0	0	0
05	55563	2.39341E-07	1.5573E-07	3.6752E-08	0	0	0	0	0	0	0	0	0	0	0	0	0
05	121923	0.000101748	6.6206E-05	1.5625E-05	0	0	0	0	0	0	0	0	0	0	0	0	0
05	10000	2.26758E-09	1.47542E-09	3.482E-10	0	0	0	0	0	0	0	0	0	0	0	0	0
05	54053	2.08382E-07	1.35586E-07	3.1998E-08	0	0	0	0	0	0	0	0	0	0	0	0	0
06	15853	4.93932E-09	3.21382E-09	7.5846E-10	820	1.34077E-06	3.1291E-07	1.4707E-08	0	0	0	0	0	0	0	0	0
06	190817	0.054144427	0.036009409	0.00849822	15844	3.56454E-05	8.3192E-06	3.91E-07	0	0	0	0	0	0	0	0	0
07	29850	2.16146E-08	1.40638E-08	3.319E-09	0	0	0	0	0	0	0	0	0	0	0	0	0
07	15881	4.95583E-09	3.22456E-09	7.61E-10	0	0	0	0	0	0	0	0	0	0	0	0	0
08	4618000	0.571000107	0.471755404	0.11133428	1092000	0.749123721	0.4987204	0.02346028	17	1	0.352	0	0	0	0	0	0
08	4628026	0.571196858	0.471958224	0.11138214	1232000	0.736583933	0.50963839	0.023953	0	0	0	0	0	0	0	0	0
08	4600000	0.570646872	0.471391354	0.11124836	2065	3.46295E-06	8.0818E-07	3.7984E-08	0	0	0	0	0	0	0	0	0
08	4600000	0.570646872	0.471391354	0.11124836	2716	4.61568E-06	1.0772E-06	5.0629E-08	0	0	0	0	0	0	0	0	0
08	1256406	0.505031745	0.40935302	0.09570579	0	0	0	0	0	0	0	0	0	0	0	0	0
08	1198215	0.503889993	0.404417575	0.09544255	0	0	0	0	0	0	0	0	0	0	0	0	0
08	19388	7.39562E-09	4.812104E-09	1.1356E-09	0	0	0	0	0	0	0	0	0	0	0	0	0
08	177237	0.015711419	0.010287784	0.00242792	0	0	0	0	0	0	0	0	0	0	0	0	0
08	446373	0.168135069	0.117155327	0.02764866	0	0	0	0	1	0.5	0.176	0	0	0	0	0	0
08	92290	6.83762E-06	4.448995E-06	1.05E-06	1310000	0.760740337	0.51580285	0.02424273	0	0	0	0	0	0	1	0.25	0.00035
08	576137	0.206538891	0.146215598	0.03450688	1680	2.7953E-06	6.5326E-07	3.0661E-08	0	0	0	0	0	0	0	0	0
08	778527	0.303827811	0.223987614	0.05286108	0	0	0	0	0	0	0	0	0	0	0	0	0
08	13134	3.52099E-09	2.296091E-09	5.4065E-10	2330	3.92854E-06	9.1684E-07	4.3091E-08	0	0	0	0	0	0	0	0	0
08	13134	3.52099E-09	2.296091E-09	5.4065E-10	210360	0.125387545	0.03422711	0.00160867	0	0	0	0	0	0	0	0.25	0.00035
08	10219706	0.680928872	0.590235598	0.1393956	0	0	0	0	0	0	0	0	0	0	0	0	0
08	10219706	0.15140696	0.590235598	0.1393956	0	0	0	0	0	0	0	0	0	0	0	0	0
08	370111	0.118977236	0.10477557	0.02472703	0	0	0	0	0	0	0	0	0	0	1	0.25	0.00035
08	199458	0.55293672	0.081245861	0.01917402	0	0	0	0	2	0.53125	0.187	0	0	0	0	0	0
08	3697532	0.552935672	0.453271128	0.10697199	2200000	0.808165972	0.5907462	0.02776507	0	0	0	0	0	0	0	0	0
08	1041616	0.500816678	0.401420165	0.09473516	0	0	0	0	0	0	0	0	0	0	0	0	0
08	922704	0.417023435	0.322491979	0.07610811	0	0	0	0	0	0	0	0	0	0	0	0	0
08	922704	0.417023435	0.322491979	0.07610811	0	0	0	0	0	0	0	0	0	0	0	0	0
08	11496	2.82117E-09	1.835765E-09	4.3324E-10	0	0	0	0	0	0	0	0	0	0	0	0	0
08	11432	2.79616E-09	1.819325E-09	4.2936E-10	0	0	0	0	0	0	0	0	0	0	0	0	0
08	922704	0.417023435	0.322491979	0.07610811	1415778	0.766376954	0.52426306	0.0246036	5	0.625	0.22	0	0	0	1	0.25	0.00035
08	922704	0.417023435	0.322491979	0.07610811	2585000	0.828681556	0.62594828	0.02941937	0	0	0	0	0	0	0	0	0
08	84443	3.34455E-06	4.54816E-06	1.0734E-06	0	0	0	0	0	0	0	0	0	0	0	0	0
08	42221	6.99087E-08	3.204066E-08	7.5646E-09	0	0	0	0	0	0	0	0	0	0	0	0	0
08	38474	4.92432E-08	1.015981E-06	2.3977E-07	0	0	0	0	0	0	0	0	0	0	0	0	0
08	6459168	0.607131429	0.509545736	0.12025279	2200000	0.808165972	0.5907462	0.02776507	3	0.5625	0.198	0.75	0.75	0	0	0	0
08	6607022	0.667022122	0.509429736	0.12102542	1100000	0.749550019	0.49934744	0.02346933	0	0	0	0	0	0.0105	0	0	0
08	6615073	0.610206628	0.512613219	0.12102392	1018238	0.745159148	0.49306107	0.02317387	6	0.65625	0.231	1	0.75	0	0	0	0
08	6600000	0.660895135	0.512481879	0.12094572	1650891	0.778905474	0.54348914	0.02554399	0	0	0	0	0	0	0	0	0
08	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08	200000	0.125	0.085569363	0.02019437	0	0	0	0	0	0	0	0	0	0	0	0	0
11	14539	4.20997E-09	2.73926E-09	6.4647E-10	0	0	0	0	0	0	0	0	0	0	0	0	0
11	34966	3.53546E-08	2.30039E-08	5.4289E-09	0	0	0	0	0	0	0	0	0	0	0	0	0
11	23342	1.12643E-08	7.32923E-09	1.7297E-09	0	0	0	0	0	0	0	0	0	0	0	0	0
12	63822	5.09658E-07	3.1161E-07	7.3265E-08	0	0	0	0	0	0	0	0	0	0	0	0	0
12	14912	4.40811E-09	2.868251E-09	6.7691E-10	1200	1.97727E-06	4.6145E-07	2.168E-08	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	17526	6.00369E-09	3.90637E-09	9.2191E-10	0	0	0	0	0	0	0	0	0	0	0	0	0
12	40005	5.68425E-08	3.69852E-08	8.7285E-09	0	0	0	0	0	0	0	0	0	0	0	0	0
12	40385	5.88987E-08	3.83231E-08	9.0442E-09	0	0	0	0	0	0	0	0	0	0	0	0	0
12	49605	9.00791E-08	9.007911E-08	2.1259E-08	0	0	0	0	0	0	0	0	0	0	0	0	0
12	76089	1.01598E-06	1.015981E-06	2.3977E-07	0	0	0	0	0	0	0	0	0	0	0	0	0
12	141216	0.000590906	0.000384043	9.0631E-05	0	0	0	0	0	0	0	0	0	0	0	0	0
12	150864	0.001421277	0.000925299	0.00021837	0	0	0	0	0	0	0	0	0	0	0	0	0
12	92731	7.11801E-06	4.631425E-06	1.093E-06	0	0	0	0	0	0	0	0	0	0	0	0	0
12	10193	2.33438E-09	1.51932E-09	3.5853E-10	0	0	0	0	0	0	0	0	0	0	0	0	0
12	93115	6.75588E-06	4.382556E-06	1.0343E-06	0	0	0	0	0	0	0	0	0	0	0	0	0
12	91830	6.55692E-06	4.26634E-06	1.0069E-06	0	0	0	0	0	0	0	0	0	0	0	0	0

The following is a dense multi-column scoring spreadsheet (rotated on the page). Column headers, left to right:

DAYHOSP	DAYHOSP Score	Weighted Score	DAYLOST	DAYLOST Score	Weighted Score	DAYREST	DAYREST Score	Weighted Score	FLSPL	FLSPL Score	Weighted Score	OLSPL	OLSPL Score	Weighted Score	Raw HYSPL	HYSPL Score	Weighted Score	TOTLOSS	TOTLOSS Score	Weighted Score	MHRS	Unweighted Score	MHRS Utility	MHRS Weighted Score	Total Score
0	0	0	2	2.17391E-05	3.913E-07	0	0	0					0	0		0	0		0	0	12	0.0009375	0.0009375	5.8127E-05	0.176
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0		0	0	64	0.005	0.0050002	0.00031001	5.8E-05
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0		0	0	20	0.0015625	0.0015626	9.6878E-05	0.00031
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0		0	0	21	0.0016640625	0.0016407	0.00010172	9.7E-05
																									0.0001
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0		0	0	1649	0.2202062733	0.2202126	0.01365318	0.0349
																									0
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0		0	0	175	0.0136718875	0.0136723	0.00084768	0.00087
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0		0	0	0	0	0	0	1.4E-05
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0		0	0	40	0.003125	0.0031251	0.00019376	0.00019
																									0
10	0.105769231	0.00444231	25	0.5	0.009	30	0.288306452	0.01009073					0	0		0	0		0	0	30	0.00234375	0.0023438	0.00014532	0.02368
																									0
1	0.0625	0.002625	3	5.33564E-05	9.6031E-07	0	0	0					0	0		0	0		0	0	300	0.0234375	0.0234383	0.0014317	0.00263
0	0	0	0	0	0	0	0	0					0	0		0	0		0	0	240	0.01875	0.0187506	0.0011627	0.00145
0	0	0	0	0	0	0	0	0					0	0		0	0		0	0	1150	0.1178913	0.1178913	0.00730926	0.00116
0	0	0	0	0	0	0	0	0					0	0		0	0		0	0	0	0	0	0	0.00732
0	0	0	1	6.93396E-06	1.2481E-07	14	0.0625	0.0021875					0	0		0	0		0	0	1831	0.2711149407	0.2711561	0.01681168	3.5E-10
																									0.01681
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0		0	0	0	0	0	0	0.00219
34	0.199786325	0.00839103	0	0	0	0	0	0		0	0		0	0		0	0		1	0.062	113	0.0088281	0.0088284	0.00054736	0.00055
																									0.07889
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0		0	0	34	0.00265625	0.0026563	0.00016469	0
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0		0	0	4	0.0003125	0.0003125	1.9376E-05	0.00016
																									1.9E-05
0	0	0	0	0	0	0	0	0	5	1	0.039	3	0.25	0.00975	3	0.25	0.00975	1	1	0	0	0	0	0.60727
3	0.0721115385	0.00302885	4	0.0001208846	2.172E-06	0	0.004464286	0.00015625	5	0.166667	0.039	4	0.5	0.0195	4	0.5	0.0195	1	1	1600	0.2079122213	0.2079178	0.01289091	0.27534
1	0.0625	0.002625	6	0.000572663	1.030E-05	0	0	0	2	0.083333	0.0065	1	0.083333	0.00325	1	0.083333	0.00325	1	1	1200	0.126120581	0.1261243	0.00781971	0.18625
0	0	0	0	0	0	0	0	0	1	0.083333	0.00325		0	0		0	0		0	0	3	0.0002343375	0.0002344	1.4532E-05	0.18619
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0		0	0	0	0	0	0	0.11123
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0		0	0	199	0.015546875	0.0155474	0.00096394	0.10326
180	0.745726496	0.03113051	0	0	0	0	0	0		0	0	1	0.083333	0.00325	1	0.083333	0.00325	1	1	3090	0.7956299991	0.7956355	0.0493294	1.5E-05
0	0	0	0	0	0	14	0.0625	0.0021875	3	0.25	0.00975	4	0.25	0.00975	4	0.25	0.00975	0	0	4590	0.9707667703	0.9707877	0.060181884	0.00243
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0		0	0	11	0.0008659375	0.0008594	5.3283E-05	0.20461
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0		0	0	10	0.00078125	0.0007813	4.8439E-05	0.12431
5	0.081730769	0.00343269	0	0	0	3	0.013392857	0.00046875	3	0.25	0.00975	3	0.25	0.00975	3	0.25	0.00975	1	1	0	0	0	0	0.10334
60	0.297008547	0.01247436	180	0.981575436	0.01766836	3	0	0	3	0.25	0.00975	3	0.25	0.00975	3	0.25	0.00975	1	1	274	0.021406625	0.021407	0.00132713	0.15424
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0	1	1	137	0.0107103125	0.0107035	0.00066362	5.3E-05
0	0	0	0	0	0	0	0	0	5	1	0.039	2	0.166667	0.0065	2	0.166667	0.0065	1	1	1199	0.125953116	0.1259559	0.00780926	4.8E-05
0	0	0	0	0	0	0	0	0		0	0		0.25	0.00975		0	0		0	0	0	0	0	0	0.23398
0	0	0	0	0	0	0	0	0		0	0		0.25	0.00975		0	0		0	0	0	0	0	0	0.26627
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0		0	0	0	0	0	0	0.02605
0	0	0	0	0	0	0	0	0		0	0	1	0.083333	0.00325	1	0.083333	0.00325	1	1	4	0.0003125	0.0003125	1.9376E-05	0.01984
180	0.096153846	0.00403846	82	0.848024121	0.01526443	60	0.505490483	0.01769217	2	0.166667	0.0065	3	0.083333	0.00325	3	0.083333	0.00325	1	1	0	0	0	0	0.43899
0	0	0	0	0	0	0	0	0	2	0.166667	0.0065	3	0.083333	0.00325	3	0.083333	0.00325	1	1	3	0.000214375	0.0002344	1.4532E-05	0.11229
5	0.081730769	0.00343269	0	0	0	0	0	0		0	0		0	0		0	0		0	0	65	0.0050078125	0.0050783	0.00031485	0.15111
60	0.297008547	0.01247436	0	0	0	0	0	0		0	0		0.25	0.00975		0	0	1	1	0	0	0	0	0.14136
0	0	0	0	0	0	0	0	0		0	0		0.25	0.00975		0	0	1	1	0	0	0	0	1.9E-05
78	0.364316239	0.01530128	156	0.968602103	0.01743484	392	0.637013177	0.02194546		0	0		0.25	0.0065		0	0	1	1	0	0.00003125	0.0003125	1.9376E-05	4.3E-10
156	0.655982906	0.027551128	155	0.967508573	0.01742235	1411	1	0.035		0.25	0.00325		0	0		0	0	1	1	0	0	0	0	0.43924
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0		0	0	0	0	0	0	0.19053
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0		0	0	0	0	0	0	0.0019
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0		0	0	100	0.0078125	0.0078128	0.00048439	0.00048
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0		0	0	8	0.000625	0.000625	3.8751E-05	3.9E-05
0	0	0	10	0.0120212871	0.00021641	0	0	0		0	0		0	0		0	0		0	0	5	0.000390625	0.0003906	2.4232E-05	2.4E-05
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0		0	0	33	0.0025782	0.0025782	0.00015985	0.00016
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0		0	0	23	0.001796875	0.0017969	0.00011141	0.00011
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0		0	0	0	0	0	0	0.00022
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0		0	0	560	0.044997062	0.044997	0.00278991	0.00279
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0		0	0	65	0.005050783	0.0050783	0.00031485	0.00031
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0		0	0	80	0.00625	0.0062502	0.00038751	0.00039
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0		0	0	80	0.00625	0.0062502	0.00038751	0.00039
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0		0	0	59	0.004609375	0.0046095	0.00028579	0.00029
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0		0	0	111	0.008671875	0.0086722	0.00053767	0.00063
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0		0	0	50	0.003906025	0.0039064	0.0002422	0.00046
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0		0	0	80	0.00625	0.0062502	0.00038751	0.00039
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0		0	0	1	0.00007812	7.813E-05	4.8439E-06	4.8E-06
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0		0	0	60	0.00046875	0.0046877	0.00029063	0.00029
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0		0	0	0	0	0	0	1E-06

EVENT1	DAMCOST	Score	Utility	Score	INJCOST	Score	Utility	Score	TOTFFL	Score	Score	TOTAL DISABILITY	Score	Score	PARTIAL DISABILITY	Score	Score	Score
12	103424	1.88591E-05	1.22271E-05	2.89595E-06	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	123104	0.000113307	7.37276E-05	1.74E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	238012	0.129835729	0.089085971	0.0210171721	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	87391	4.33953E-06	2.82357E-06	6.66362E-07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	43138	7.61245E-08	4.95312E-08	1.16809E-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	710137	0.264471912	0.191790805	0.04526263	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	375360	0.152444684	0.1105387	0.02490713	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	10000	2.26758E-09	1.47542E-09	3.48E-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	42169	6.95631E-08	4.52662E-08	1.06823E-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	24433	1.26009E-08	8.19889E-09	1.9349E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	30026	2.2421E-08	1.45865E-08	3.4429E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	86175	3.91637E-06	2.54817E-06	6.01537E-07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	57553	2.87211E-07	1.86884E-07	4.4105E-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	10991	2.6033E-09	1.69387E-09	3.99752E-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	10000	2.26758E-09	1.47542E-09	3.48E-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	54000	2.07371E-07	1.3492E-07	3.1843E-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	2433	1.26009E-08	8.19889E-09	1.9349E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	297459	0.136572021	0.095389467	0.02255191	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	626639	0.603348505	0.505537348	0.11938681	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	33895	3.1938E-08	2.07899E-08	4.9043E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	33805	3.165E-08	2.1695E-08	4.86E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	18427	6.44779E-09	4.32545E-09	1.0218E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	33979	3.3183E-08	2.10402E-08	4.9419E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	187144	0.039909932	0.025845776	0.00609996	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	69545	8.5958E-07	5.59248E-07	1.3139E-07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	36613	4.3125E-08	2.68889E-08	6.3458E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	25392	1.37647E-08	8.56117E-09	2.1137E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	114202	5.03513E-05	3.27613E-05	7.73195E-06	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	16000	2.26758E-09	1.47542E-09	3.48E-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	10000	2.26758E-09	1.47542E-09	3.48E-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	51238	1.48899E-07	1.04089E-07	2.4707E-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	25390	1.3311E-08	9.03625E-09	2.132E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	24360	1.231E-08	8.08516E-09	1.901E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	15805010	0.796835458	0.719929578	0.16975305	1100000	0.769550019	0.49934744	0.02346933	1	0.5	0.176	0	0	0	0	0	0	0
12	562	8.01113E-11	5.21266E-11	1.2303E-11	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	99947	1.25417E-05	8.16042E-06	1.92359E-06	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	77120	1.71539E-06	1.1161E-06	2.6341E-07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	10000	2.26758E-09	1.47542E-09	3.48E-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	12992	3.4564E-09	2.24871E-09	5.307E-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	35438	3.69753E-08	2.40583E-08	5.6778E-09	1878	3.13737E-06	7.322E-07	3.4413E-08	0	0	0	0	0	0	0	0	0	0
12	88346	3.80057E-06	2.47289E-06	5.836E-07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	88346	3.80057E-06	2.47289E-06	5.836E-07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	17004	5.65402E-09	3.67885E-09	8.6821E-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	25696	1.41941E-08	9.23557E-09	2.1796E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	33477	3.66766E-08	1.99597E-08	4.7105E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	52542	1.8136E-07	1.18021E-07	2.7853E-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	75140	1.432E-06	9.31746E-07	2.1989E-07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	63409	4.90773E-07	3.19327E-07	7.5361E-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	27640	4.97957E-07	3.24001E-07	7.6464E-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	63568	2.4021E-07	1.56302E-07	3.6887E-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	55603	9.48479E-08	6.17138E-08	1.4564E-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	45509	1.15423E-08	7.5101E-09	1.7724E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	23578	3.00946E-09	1.95814E-09	4.621E-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	11961	1.10951E-07	7.2192E-08	1.7037E-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	47205	9.02379E-08	5.87143E-08	1.3857E-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	44971	9.40667E-08	6.11678E-08	1.4436E-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	45413	0.017214819	0.011279905	0.00266186	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	178240	2.33626E-09	1.52011E-09	3.5875E-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	10197	2.5596E-07	1.64355E-07	3.8788E-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	56151	1.31082E-05	8.65914E-06	2.0436E-06	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	99598	2.480E-09	1.61384E-09	3.808E-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	10599	9.13991E-08	5.94697E-08	1.4035E-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	45109	7.5154E-08	4.89E-08	1.154E-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	-43000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	6600000	0.609895135	0.512381879	0.120934572	1370000	0.763937571	0.520587343	0.02446761	2	0.53125	0.187	0	0	0	0	0	0	0
12	52045	1.73288E-07	1.12752E-07	2.6609E-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	152871	0.001706445	0.001111081	0.00026212	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	911301	0.44626746	0.312740975	0.07380687	1200	1.97727E-06	4.6145E-07	2.1688E-08	0	0	0	0	0	0	0	0	0	0
12	2598575	0.531174464	0.431356088	0.10180004	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	10000	2.26758E-09	1.47542E-09	3.48E-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	200000	0.125	0.085560943	0.02019437	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	10000	2.26758E-09	1.47542E-09	3.48E-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	10000	2.26758E-09	1.47542E-09	3.48E-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	102000	1.65642E-05	1.07778E-05	2.541E-06	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	10000	2.26758E-09	1.47542E-09	3.48E-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15	23190	1.10884E-08	7.21479E-09	1.7027E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15	10000	2.26758E-09	1.47542E-09	3.48E-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20	60309	3.69639E-07	2.4051E-07	5.676E-08	23752	6.39764E-05	1.4932E-05	7.018E-07	0	0	0	0	0	0	0	0	0	0
20	4720000	0.573001768	0.473820312	0.111182159	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20	50773	1.54159E-07	1.00310E-07	2.36728E-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22	289019	0.137112845	0.093400601	0.022278654	0	0	0	0	0	0	0	0	0	0	0	0	0	0

DAYHOSP	Score	Score	DAYLOST	Score	Score	DAYREST	Score	Score	FLSPL	Score	OLSPL	Score	HYSPL	Score	TOTLOSS	Score	Score	MHHRS	Score	Utility	Score	Score

Data table (values as read; all columns from TOTFTL onward are 0 for every row unless noted):

EVENT1	DAMCOST	Score	Utility	Score	INJCOST	Score	Utility	Score	TOTFTL	Score	Score	TOTAL DISABILITY	Score	Score	PARTIAL DISABILITY	Score	Score
23	33499	3.074068E-08	2.000178E-08	4.720468E-09	0	0	0	0	0	0	0	0	0	0	0	0	0
23	152675	0.001676243	0.001091403	0.00025757	0	0	0	0	0	0	0	0	0	0	0	0	0
23	81957	2.66621E-06	1.7348E-06	4.0941E-07	0	0	0	0	0	0	0	0	0	0	0	0	0
23	287367	0.136958926	0.094216673	0.022223513	0	0	0	0	0	0	0	0	0	0	0	0	0
23	19810	7.74527E-09	5.03955E-09	1.1893E-09	0	0	0	0	0	0	0	0	0	0	0	0	0
23	18246	6.5341E-09	4.238488E-09	1.0003E-09	0	0	0	0	0	0	0	0	0	0	0	0	0
23	53215	1.92952E-07	1.25546E-07	2.9629E-08	0	0	0	0	0	0	0	0	0	0	0	0	0
23	246415	0.130977836	0.089981436	0.021213202	0	0	0	0	0	0	0	0	0	0	0	0	0
23	75000	1.41363E-06	9.19924E-07	2.171E-07	0	0	0	0	0	0	0	0	0	0	0	0	0
23	73183	1.19769E-06	7.7942E-07	1.8394E-07	0	0	0	0	0	0	0	0	0	0	0	0	0
23	29303	2.04897E-08	1.33318E-08	3.1463E-09	0	0	0	0	0	0	0	0	0	0	0	0	0
23	15415	4.66448E-09	3.04928E-09	7.1963E-10	0	0	0	0	0	0	0	0	0	0	0	0	0
23	36490	4.08479E-08	2.6574E-08	6.2724E-09	0	0	0	0	0	0	0	0	0	0	0	0	0
23	190817	0.054144427	0.036005409	0.008489821	0	0	0	0	0	0	0	0	0	0	0	0	0
23	341141	0.145952625	0.100774989	0.0237823	0	0	0	0	0	0	0	0	0	0	0	0	0
23	117432	6.75803E-05	4.3973E-05	1.0378E-05	0	0	0	0	0	0	0	0	0	0	0	0	0
23	10000	2.26758E-09	1.4754E-09	3.482E-10	0	0	0	0	0	0	0	0	0	0	0	0	0
23	55366	2.35056E-07	1.52942E-07	3.6094E-08	0	0	0	0	0	0	0	0	0	0	0	0	0
23	41469	6.63974E-08	4.3202E-08	1.0196E-08	0	0	0	0	0	0	0	0	0	0	0	0	0
23	167819	0.006661324	0.004345914	0.00102564	0	0	0	0	0	0	0	0	0	0	0	0	0
23	37085	4.32084E-08	2.81148E-08	6.6349E-09	4264	7.4811E-06	1.7459E-06	8.2059E-08	0	0	0	0	0	0	0	0	0
23	93290	6.83762E-06	4.4489E-06	1.05E-06	0	0	0	0	0	0	0	0	0	0	0	0	0
23	51999	1.71135E-07	1.11351E-07	2.6279E-08	0	0	0	0	0	0	0	0	0	0	0	0	0
23	161709	0.003817665	0.002487829	0.000587113	0	0	0	0	0	0	0	0	0	0	0	0	0
23	83868	3.17357E-06	2.06492E-06	4.8733E-07	0	0	0	0	0	0	0	0	0	0	0	0	0
23	14720	4.30532E-09	2.801311E-09	6.611E-10	0	0	0	0	0	0	0	0	0	0	0	0	0
23	93472	7.61526E-06	4.95497E-06	1.1694E-06	0	0	0	0	0	0	0	0	0	0	0	0	0
23	25584	1.4844E-08	9.6626E-09	2.1573E-09	0	0	0	0	0	0	0	0	0	0	0	0	0
23	19132	7.18956E-09	4.6721E-09	1.1041E-09	0	0	0	0	0	0	0	0	0	0	0	0	0
23	362114	0.149857518	0.103635994	0.02445809	0	0	0	0	0	0	0	0	0	0	0	0	0
23	49318	1.3483E-07	8.77285E-08	2.07045E-08	0	0	0	0	0	0	0	0	0	0	0	0	0
23	133281	0.090206392	0.000616539	0.001391E-05	0	0	0	0	0	0	0	0	0	0	0	0	0
23	39789	5.57051E-08	3.62481E-08	8.5538E-09	0	0	0	0	0	0	0	0	0	0	0	0	0
23	173333	0.011008813	0.007194866	0.00169799	0	0	0	0	0	0	0	0	0	0	0	0	0
23	76674	1.647103E-06	1.071663E-06	2.5291E-07	0	0	0	0	0	0	0	0	0	0	0	0	0
23	103285	1.8621E-06	1.21165E-06	2.8595E-06	0	0	0	0	0	0	0	0	0	0	0	0	0
23	106917	2.59764E-05	1.68695E-05	3.9812E-06	0	0	0	0	0	0	0	0	0	0	0	0	0
23	272407	0.134690148	0.092569745	0.021834646	0	0	0	0	0	0	0	0	0	0	0	0	0
23	19753	7.69726E-09	5.00831E-09	1.1821E-09	0	0	0	0	0	0	0	0	0	0	0	0	0
23	10680000	6.68996159	6.00445777	1.3417052	480	7.79468E-07	1.8191E-07	8.3498E-09	0	0	0	0	0	0	0	0	0
23	92110	6.72638E-06	4.3766E-06	1.0329E-06	0	0	0	0	0	0	0	0	0	0	0	0	0
23	38020	4.71861E-08	3.07022E-08	7.2457E-09	0	0	0	0	0	0	0	0	0	0	0	0	0
23	15972	5.09979E-09	3.25967E-09	7.6928E-10	0	0	0	0	0	0	0	0	0	0	0	0	0
23	45822	9.76358E-08	6.35278E-08	1.4993E-08	0	0	0	0	0	0	0	0	0	0	0	0	0
23	333608	0.144410673	0.099961882	0.02352019	0	0	0	0	0	0	0	0	0	0	0	0	0
23	277856	0.135504153	0.093160292	0.02198563	0	0	0	0	0	0	0	0	0	0	0	0	0
23	73214	1.20128E-06	7.81628E-07	1.84465E-07	0	0	0	0	0	0	0	0	0	0	0	0	0
23	296726	0.138423533	0.095281446	0.022348642	0	0	0	0	0	0	0	0	0	0	0	0	0
23	99620	1.99773E-06	8.67652E-06	2.0477E-06	0	0	0	0	0	0	0	0	0	0	0	0	0
23	78791	1.332182E-07	1.29985E-06	3.0676E-07	0	0	0	0	0	0	0	0	0	0	0	0	0
23	49111	1.19135E-06	8.6071E-08	2.0313E-08	0	0	0	0	0	0	0	0	0	0	0	0	0
23	11878	2.9753E-09	1.93591E-09	4.5688E-10	0	0	0	0	0	0	0	0	0	0	0	0	0
23	73123	0.004170413	7.75166E-07	1.8294E-07	0	0	0	0	0	0	0	0	0	0	0	0	0
23	162679	3.79331E-06	0.007178089	0.000634147	0	0	0	0	0	0	0	0	0	0	0	0	0
23	85825	1.60653E-06	2.46816E-06	5.8249E-07	0	0	0	0	0	0	0	0	0	0	0	0	0
23	15154	0.168359478	2.95431E-09	6.9722E-10	0	0	0	0	0	0	0	0	0	0	0	0	0
23	76401	3.02866E-05	1.04531E-06	2.4669E-07	0	0	0	0	0	0	0	0	0	0	0	0	0
23	446882	0.000104529	0.117248023	0.027670053	0	0	0	0	0	0	0	0	0	0	0	0	0
23	108623	0.000302611	1.97065E-05	4.6507E-06	0	0	0	0	0	0	0	0	0	0	0	0	0
23	122198	5.02648E-09	6.78858E-05	1.6021E-05	0	0	0	0	0	0	0	0	0	0	0	0	0
23	133886	2.26798E-09	0.000196921	4.6473E-05	0	0	0	0	0	0	0	0	0	0	0	0	0
23	16000	2.26798E-09	3.270E5E-09	7.718E-10	0	0	0	0	0	0	0	0	0	0	0	0	0
23	10000	2.26798E-09	1.47542E-09	3.482E-10	0	0	0	0	0	0	0	0	0	0	0	0	0
23	10000	2.26798E-09	1.47542E-09	3.482E-10	0	0	0	0	0	0	0	0	0	0	0	0	0
23	10000	2.49124E-07	1.62095E-07	3.8255E-08	0	0	0	0	0	0	0	0	0	0	0	0	0
23	56000	0.125	0.085559363	0.010019437	0	0	0	0	0	0	0	0	0	0	0	0	0
23	200000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24	83314	3.01729E-06	1.96353E-06	4.6333E-07	0	0	0	0	0	0	0	0	0	0	0	0	0
24	100000	1.38047E-05	8.98221E-06	2.1198E-06	0	0	0	0	0	0	0	0	0	0	0	0	0
24	68860	8.07413E-07	5.25352E-07	1.2398E-07	0	0	0	0	0	0	0	0	0	0	0	0	0
24	20702	8.35012E-09	5.55021E-09	1.3099E-09	0	0	0	0	0	0	0	0	0	0	0	0	0
24	40000	5.68159E-08	3.69679E-08	8.7344E-09	0	0	0	0	0	0	0	0	0	0	0	0	0
24	150000	0.001313686	0.000855216	0.000201083	0	0	0	0	0	0	0	0	0	0	0	0	0
24	250727	0.131574692	0.090313105	0.02131389	0	0	0	0	0	0	0	0	0	0	0	0	0

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EVENT1	DAMCOST	Score	Utility	Score	INJCOST	Score	Utility	Score	TOTFTL	Score	Score	TOTAL DISABILITY	Score	Score	PARTIAL DISABILITY	Score	Score	Score
24	64351	5.34891E-07	3.48033E-07	8.23136E-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24	101089	1.53448E-05	9.91923E-06	2.34095E-06	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24	34569	3.40445E-08	2.21514E-08	5.22777E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24	274608	0.135017414	0.092807125	0.0219024	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24	5879892	0.595763641	0.497053715	0.11741677	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24	20572	8.41172E-09	5.47318E-09	1.29317E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24	153049	0.001734345	0.001129259	0.00026651	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25	96492	1.00277E-05	6.54467E-06	1.53998E-06	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25	28527	1.89987E-08	1.23541E-08	2.91565E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25	56334	2.59285E-07	1.68056E-07	3.9661E-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25	140418	0.000546715	0.000357106	8.4277E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25	27301	1.68191E-08	1.09405E-08	2.5827E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25	30204	2.23731E-08	1.45573E-08	3.4355E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25	59402	3.40201E-07	2.21355E-07	5.2241E-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25	77595	1.79133E-06	1.16555E-06	2.7507E-07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25	55292	2.33466E-07	1.51907E-07	3.5835E-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25	42618	7.25315E-08	4.71934E-08	1.1113E-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25	16767	5.50667E-09	3.57307E-09	8.4466E-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25	128491	0.000185103	0.000120448	2.8426E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25	14232	4.05178E-09	2.63634E-09	6.2218E-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25	56755	2.66973E-07	1.73709E-07	4.0995E-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25	55600	2.40154E-07	1.56259E-07	3.6877E-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25	113304	5.56694E-05	3.62217E-05	8.5486E-06	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25	35863	3.84952E-08	2.50473E-08	5.9112E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25	67456	7.10281E-07	4.62152E-07	1.0907E-07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25	10000	2.67258E-09	1.73542E-09	3.482E-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26	922704	0.417023435	0.332491979	0.07610811	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28	811211	0.3255461	0.241197263	0.05715855	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29	52592	1.80772E-07	1.17588E-07	2.7751E-08	0	0	0	0	0	0	0	0	0	0	0.25	0.0035
29	472200	0.174682773	0.122046622	0.028803	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29	6551892	0.608951057	0.511479159	0.120870985	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29	404698	0.519061272	0.345781395	0.099896032	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29	23929	4.42343122E-06	7.76639E-09	1.8376E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29	59928	3.56976E-07	2.32271E-07	5.4816E-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29	187237	0.039075904	0.025829036	0.006609565	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29	171623	0.069431601	0.006152938	0.001145209	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29	412461	1.60342868	0.111293853	0.02626535	840	1.37403E-06	3.2067E-07	1.5071E-08	0	0	0	0	0	0	0	0	0	0
29	379377	0.153249472	0.106130972	0.02504691	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30	922704	0.417023435	0.332491979	0.07610811	85595	0.001212048	0.00028328	1.3314E-05	0	0	0	0	0	0	0	0	0	0
30	1156512	0.030071412	0.403618486	0.09523396	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30	198221	0.417023435	0.072210931	0.01704178	432000	0.14072675	0.03917866	0.0018414	2	0.53125	0.187	0	0	0	0	0	0	0
30	922704	0.417023435	0.332491979	0.07610811	24655	6.78229E-05	1.581E-05	7.4399E-07	0	0	0	0	0	0	0	0	0	0
30	1971318	0.519061272	0.419323395	0.09896032	480000	0.146857575	0.04121009	0.00193687	2	0.53125	0.187	0	0	0	0	0	0	0
30	948158	0.442343122	0.345781395	0.08160441	16990	3.92144E-05	9.1521E-06	4.3015E-07	0	0	0	0	0	0	0	0	0	0
30	349382	0.147458314	0.101877608	0.02404312	0	0	0	0	1	0.5	0.176	0	0	0	0	0	0	0
30	244479	0.130712253	0.089689409	0.0211667	341330	0.132425767	0.0364761	0.00171438	0	0	0	0	0	0	0	0	0	0
30	17026	5.66842E-09	3.68822E-09	8.7042E-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30	932653	0.426699897	0.331335837	0.07819549	3750	6.50981E-06	1.5193E-06	7.1405E-08	0	0	0	0	0	0	0	0	0	0
30	27660	1.74291E-08	1.13404E-08	2.6763E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30	581216	0.208535556	0.147610364	0.03483605	37385	0.000139943	3.2665E-05	1.5353E-06	0	0	0	0	0	0	0	0	0	0
30	1112548	0.502208657	0.402756845	0.09509534	210120	0.125378343	0.0342242	0.00160854	0	0	0	0	0	0	0	0	0	0
30	922704	0.417023435	0.332491979	0.07610811	360	5.83187E-07	1.361E-07	6.3968E-09	0	0	0	0	0	0	0	0	0	0
30	5879892	0.595763641	0.108075435	0.01294883	460000	0.144127338	0.04030168	0.00189418	1	0.5	0.176	0	0	0	0	0	0	0
30	392231	0.155867978	0.108075435	0.01294883	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30	195317	0.0815852	0.054867912	0.01294863	0	0.76030189	0.51514963	0.02421203	0	0	0	1	0.75	0	0	0.0105	0
30	922390	6.83762E-06	4.44899E-06	1.05E-06	1301772	0.76030189	0.51514963	0.02421203	6	0.65625	0.231	0	0	0	0	0	0	0
30	922704	0.417023435	0.332491979	0.07610811	2845000	0.842536235	0.65073668	0.03058462	6	0.65625	0.231	0	0	0	0	0	0	0
30	16997	5.64291E-09	3.67162E-09	8.665E-10	5776375	0.998741089	0.99664275	0.04684221	6	0.65625	0.231	0	0	0	0	0	0	0
30	4778060	0.57414145	0.474097178	0.11209933	2470000	0.822553324	0.61524838	0.02891667	3	0.5625	0.198	0	0	0	0	0	0	0
30	156037	0.002377015	0.001482924	0.00034997	3360	5.78612E-06	1.3504E-06	6.34672E-08	0	0	0	0	0	0	0	0	0	0
30	5013882	0.578965188	0.479991936	0.1132781	0	0	0	0	0	0	0	0	0	0	1	0.25	0.0035
30	922704	0.417023435	0.332491979	0.07610811	2160	3.62929E-06	8.47E-07	3.9809E-08	0	0	0	0	0	0	0	0	0	0
30	13095000	0.735587695	0.653169694	0.15414805	2740000	0.836941076	0.6406251	0.03010938	4	0.59375	0.209	0	0	0	0	0	0	0
30	100026	1.38374E-05	9.00351E-06	2.1248E-06	1495000	0.770598475	0.53067387	0.02494177	4	0.53125	0.187	0	0	0	0	0	0	0
30	989124	0.487182543	0.388211909	0.09161801	3365000	0.870245595	0.70238699	0.03303616	9	0.75	0.264	0	0	0	0	0	0	0
30	933961	0.427992748	0.333523809	0.07847562	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30	7500000	0.627556853	0.531400819	0.12541059	4473	7.88185E-06	1.8395E-06	8.6455E-08	3	0.5625	0.198	0	0	0	0	0	0	0
30	10907500	0.69442608	0.605519657	0.14290264	1690908	0.77890638	0.54349035	0.02554406	3	0.5625	0.198	0	0	0	0	0	0	0
30	3756000	0.554084105	0.454457262	0.1072471	2200000	0.808165972	0.5907462	0.02776507	2	0.53125	0.187	0	0	0	0	0	0	0
30	3777694	0.554509831	0.454870219	0.1073493	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30	962367	0.457301333	0.359766582	0.08490491	27160	7.93251E-05	1.8498E-05	8.6941E-07	0	0	0	0	0	0	0	0	0	0
30	190817	0.05414427	0.036009409	0.00849822	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30	89952	5.52556E-06	3.59533E-06	8.4847E-07	1680	2.7935E-06	6.5236E-07	3.0661E-08	0	0	0	0	0	0	0	0	0	0
30	3756000	0.554084105	0.454437262	0.1072479	162593	0.027711885	0.00669077	0.00031447	0	0	0	0	0	0	0	0	0	0
30	4691994	0.572453175	0.473253021	0.11166771	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30	11973	3.01442E-09	1.96137E-09	4.6288E-10	2470000	0.822553524	0.61524838	0.02891667	3	0.5625	0.198	0	0	0	0	0	0	0
30	956192	0.450723266	0.353597928	0.08341911	460000	0.144127338	0.04030168	0.00189418	1	0.5	0.176	0	0	0	0	0	0	0
30	969772	0.46534257	0.367354188	0.08669559														

DAYHOSP	Score	DAYLOST	Score	DAYREST	Score	Score	FLSPL	Score	OLSPL	Score	Score	HYSPL	Score	Score	TOTLOSS	Score	Score	MHRS	Score	Utility	Score	Score
0		0													0	0	0	300	0.0234365	0.0234365	0.00145317	0.00145
0		0													0	0	0	600	0.048768453	0.048757697	0.00302372	0.00303
0		0													0	0	0	240	0.01875	0.01875	0.00116254	0.00116
0		0													0	0	0	283	0.022109375	0.0221101	0.00137083	0.02327
0		0												0.062	1			0	0	0	0	0.17942
0		0													0	0	0	172	0.013438	0.013438	0.00083315	0.00083
0		0													0	0	0	1890	0.289625	0.289625	0.03795675	0.01822
																						0

Large numeric data table (rotated on page). Columns left-to-right:

EVENT1	DAMCOST	Score	Utility	Score	INJCOST	Score	Utility	Score	TOTFTL	Score	Score	TOTAL DISABILITY 0	Score	Score	PARTIAL DISABILITY 0	Score	Score	Score
30	932835	0.426879499	0.331501656	0.07023439	2200000	0.808165972	0.5907462	0.02776507	2	0.53125	0.167	0	0	0	0	0	0	0
30	10000	2.26758E-09	1.47542E-09	3.482E-10	2470000	0.822553324	0.61524838	0.02891667	3	0.5625	0.198	0	0	0	0	0	0	0
30	4691994	0.572453175	0.47325021	0.11116771	0	0	0	0	1	0.5	0.176	0	0	0	0	0	0	0
30	10000000	0.67561718	0.585388247	0.13815163	295544	0.129440779	0.03551757	0.00166933	1	0.5	0	0	0	0	0	0	0	0
30	200000	0.125	0.085569363	0.02019437	1398	2.31279E-06	5.39762E-07	2.5369E-08	0	0	0.176	0	0	0	0	0	0	0
30	91414	6.31299E-06	4.10763E-06	9.694E-07	0	0	0	0	0	0	0	0	0	0.0105	0	0	0	0
30	3697532	0.552936722	0.453271128	0.10697199	2289	3.8561E-06	8.9995E-07	4.2298E-08	0	0	0	1	0.75	0	0	0	0	0
30	948158	0.442342122	0.345781395	0.08816441	2402520	0.818937702	0.60904387	0.02862506	1	0.5	0.176	0	0	0	0	0	0	0
30	3442062	0.547923345	0.448188445	0.10577247	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30	150000	0.001313686	0.000855316	0.000201183	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30	541140	0.194735564	0.137188087	0.03237659	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30	15694	4.84635E-09	3.15333E-09	7.4419E-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30	14700	4.29471E-09	2.79444E-09	6.5948E-10	3405000	0.873377084	0.70705714	0.03323169	7	0.6875	0.242	0	0	0	0	0	0	0
30	11560000	0.706053377	0.618820034	0.14604153	0	0	0	0	8	0	0	0	0	0	0	0	0	0
30	225011	0.128112476	0.087819144	0.02072552	9265	1.8052E-05	4.2145E-06	1.9808E-07	8	0	0	0	0	0	0	0	0	0
30	850000	0.354110265	0.266637135	0.10724719	47532	0.000230672	5.3849E-05	2.5309E-06	6	0	0	0	0	0	0	0	0	0
30	3756000	0.554084105	0.454437262	0.10954148	2740000	0.836941076	0.6406251	0.03010938	6	0.65625	0.231	0	0	0	0	0	0	0
30	100000	0.5	0.406824906	0.11112534	1370000	0.769937571	0.52058743	0.02446761	4	0.53125	0.187	0	0	0	0	0	0	0
30	5200000	0.582141351	0.483582363	0.0884982	1370000	0.769937571	0.52058743	0.02446761	5	0.5625	0.198	0	0	0	0	0	0	0
30	190817	0.054144427	0.036069409	0.008684982	2643080	0.831819108	0.6314838	0.0296797	3	0.5625	0.198	0	0	0	0	0	0	0
30	101305	0.500408092	0.401031568	0.10712719	840	1.37403E-06	3.2067E-07	1.5071E-08	2	0	0	0	0	0	0	0	0	0
30	3756000	0.554084105	0.454437262	0.10954148	1370000	0.769937571	0.52058743	0.02446761	2	0	0	0	0	0	0	0	0	0
30	7056	1.18409E-06	7.7044E-07	1.81812E-07	15228	3.37942E-05	7.8871E-06	3.707E-07	2	0.53125	0.187	0	0	0	0	0	0	0
30	923704	0.417023435	0.322491979	0.07611981	1370000	0.769937571	0.52058743	0.02446761	1	0.5	0.176	0	0	0	0	0	0	0
30	221402	0.127657624	0.087483854	0.11417052	0	0	0	0	2	0.53125	0.187	0	0	0	0	0	0	0
30	10680000	0.68996159	0.6004457777	0.11417052	2200000	0.808165972	0.5907462	0.02776507	1	0	0.176	0	0	0	0	0	0	0
30	3767666	0.554313841	0.454670867	0.10730214	480	7.79468E-07	1.8191E-07	8.5498E-09	2	0.53125	0.253	0	0	0	0	0	0	0
30	3831672	0.558569103	0.458948128	0.10760376	2870000	0.843868416	0.65516459	0.03069874	8	0.71875	0.187	0	0	0	0	0	0	0
30	91468	6.34414E-06	4.12789E-06	9.7418E-07	1225000	0.756210923	0.50908821	0.02392715	4	0.53125	0.187	0	0	0	0	0	0	0
30	231746	0.577892317	0.478879419	0.02087599	3628419	0.884282464	0.73609532	0.03434268	2	0.59375	0.209	0	0	0	0	0	0	0
30	10680000	0.125	0.6899159	0.11417052	0	0	0	0	1	0	0	2	2	0.014	0	0	0	0
30	922704	0.417023435	0.322491979	0.07611981	2200000	0.808165972	0.5907462	0.02776507	2	0.53125	0.187	0	0	0	0	0	0	0
30	10680000	0.68996159	0.600445777	0.03125353	8542	1.63944E-05	3.8262E-06	1.7983E-07	2	0	0	0	0	0	0	0	0	0
30	238224	0.139864306	0.089076543	0.02102306	480	7.79468E-07	1.8191E-07	8.5498E-09	2	0.53125	0.187	0	0	0	0	0	0	0
30	2322539	0.525953679	0.426155629	0.10085273	2870000	0.843868416	0.65516459	0.03069874	8	0.53125	0.187	0	0	0	0	0	0	0
30	123890	0.080121719	0.052014E-05	1.8692E-05	1225000	0.756210923	0.50908821	0.02392715	4	0.53125	0.187	0	0	0	0	0	0	0
30	4969211	0.577892317	0.478879419	0.02019437	3628419	0.884282464	0.73609532	0.03434268	2	0.59375	0.209	0	0	0	0	0	0	0
30	200000	0.125	0.085569363	0.02019437	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30	521025	0.188469229	0.133430196	0.03125353	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30	105336	2.23869E-05	1.45664E-05	3.4377E-06	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30	10682045	0.690021345	0.690513656	0.1417312	30074	9.40881E-05	2.1961E-05	1.0321E-06	2	0.53125	0.187	0	0	0	0	0	0	0
30	295408	0.138214448	0.095132363	0.02245053	1370000	0.769937571	0.52058743	0.02446761	2	0.53125	0.187	0	0	0	0	0	0	0
30	358828	0.149228858	0.103175673	0.02414946	2200000	0.808165972	0.5907462	0.02776507	2	0.53125	0.187	0	0	0	0	0	0	0
30	922704	0.417023435	0.322491979	0.07611981	480	7.79468E-07	1.8191E-07	8.5498E-09	8	0	0	0	0	0	0	0	0	0
30	10680000	0.68996159	0.600445777	0.1417052	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30	139509	0.000505102	0.000328717	7.75758E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30	1932271	0.518295608	0.418566162	0.09841945	1251010	0.757596924	0.51113503	0.02402335	1	0.5	0.176	0	0	0	0	0	0	0
30	1832065	0.516740659	0.417031567	0.09809476	1440	2.38431E-06	5.5645E-07	2.6133E-08	1	0	0	0	0	0	0	0	0	0
30	92290	6.83762E-06	-1.46649E-05	1.05E-06	0	0	0	0	0	0	0	0	0	0	2	0.4375	0	0.006125
30	165964	0.015625501	0.003608601	0.00086579	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30	6600500	0.609904947	-0.448998.06	0.12094819	1520000	0.771930656	0.53271329	0.02503752	2	0.5	0.176	0	0	0	0	0	0	0
30	3577325	0.550677764	0.450807084	0.10640697	12325	2.56618E-05	5.98991E-06	2.8149E-07	0	0	0	0	0	0	0	0	0	0
30	335195	0.14488816	0.099996287	0.02359912	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30	348976	0.147383298	0.101812642	0.02403014	460000	0.144127338	0.04030168	0.00189418	1	0.5	0.176	0	0	0	0	0	0	0
30	850000	0.354110265	0.266637135	0.0629236	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30	25651	1.42887E-08	9.27758E-09	2.1895E-09	1495000	0.770398475	0.53067587	0.02494177	3	0.5625	0.198	0	0	0	0	0	0	0
30	157773	0.428729307	0.333280601	0.07063534	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30	934704	0.254417863	0.183728066	0.0435982	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30	690277	9.43897E-06	6.14159E-06	1.4494E-06	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30	95828	0.001877243	0.001222373	0.00028848	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30	153918	0.18274979B	0.128108476	0.0302336	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30	501593	0.783315243	0.712884093	0.16824065	2200000	0.808165972	0.5907462	0.02776507	2	0.53125	0.187	0	0	0	0	0	0	0
30	15539000	7.41288E-07	4.83237E-07	1.1383E-07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30	67924	0.002667207	0.001737313	0.00041001	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30	157773	9.21085E-09	5.99314E-09	1.4144E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30	21421	0.354110265	0.266637135	0.06292636	1100000	0.749550019	0.49934744	0.02346933	3	0.53125	0.187	0	0	0	0	0	0	0
30	850000	0.354110265	0.266637135	0.06292636	1100000	0.749550019	0.49934744	0.02346933	3	0.53125	0.187	0	0	0	0	0	0	0
30	6600000	0.609895135	0.512481079	0.12094572	2470000	0.822553324	0.61524838	0.02891667	3	0.5625	0.198	0	0	0	0	0	0	0
32	27833	1.77301E-08	1.15363E-08	2.7226E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32	70350	9.25032E-07	6.01881E-07	1.4204E-07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32	42246	7.00636E-08	4.55976E-08	1.0759E-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32	71053	9.8632E-07	6.4176E-07	1.5146E-07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32	59460	3.43011E-07	2.22534E-07	5.2518E-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32	15686	4.84171E-09	3.15031E-09	7.4347E-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32	79926	2.21554E-06	1.44157E-06	3.4021E-07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32	18122	6.42381E-09	4.17972E-09	9.8641E-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32	38793	5.07404E-08	3.30148E-08	7.7915E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32	33798	3.16317E-08	2.05815E-08	4.8571E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32	15985	5.01753E-09	3.26471E-09	7.7047E-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32	23217	1.11195E-08	7.235E-09	1.7075E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32	46610	1.26312E-07	8.21862E-08	1.9396E-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32	104030	1.99297E-05	1.29676E-05	3.0684E-06	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32	311252	0.140781094	0.096998039	0.02289154	10055	1.99235E-05	4.6519E-06	2.1864E-07	0	0	0	0	0	0	0	0	0	0

Table columns (left to right): DAYHOSP, Score, Score, DAYLOST, Score, Score, Score, DAYREST, Score, Score, FLSPL, Score, Score, OLSPL, Score, Score, HYSPL, Score, Score, TOTLOSS, Score, Score, Score, MHRS, Score, Utility, Score, Score

DAYHOSP	Score	Score	DAYLOST	Score	Score	Score	DAYREST	Score	Score	FLSPL	Score	Score	OLSPL	Score	Score	HYSPL	Score	Score	TOTLOSS	Score	Score	Score	MHRS	Score	Utility	Score	Score
0			0				0			3	0.25	0.09975	1	0.083333	0.00325	1	0.083333	0.00325	1	1	0.062		0				
0	0.237179487	0.00996154	0				0												1	1	0.062		0				
44	0.072115385	0.00302885	0				42	0.457766129	0.01601815										0	0	0.062		0				
3			0				0												1	0	0		0				
0			0				0												0	0	0		166	0.01298875	0.0129692	0.00008409	
4	0.076923077	0.00323077	1	6.93396E-06	1.2481E-07		21	0.161290323	0.00564516										1	0	0.062		0				
0			0				0												0	0	0.062		625	0.051197987	0.051195	0.00317437	
0			0				0												0	0	0.062		1000	0.095381324	0.0953853	0.00591389	
0			0				0												0	0	0.062		677	0.056437797	0.0564396	0.00349926	
0			0				0												0	0	0		114	0.00890625	0.0089066	0.00055221	
0			0				0												0	0	0.062		0				
0			0				0												1	0	0.062		149	0.011640625	0.011641	0.00072174	
0			0				0												0	0	0		750	0.064234284	0.0642403	0.0039829	
102	0.454059829	0.01907051	0	0.371470059	0.00674461		17	0.104836871	0.00366935										0	0	0		0				
0			17				0			1	0.083333	0.00325							1	0	0.062		0				
0	0.745726496	0.03132051	240	0.995882801	0.01792589		7	0.03125	0.00109375	1	0.083333	0.00325				2	0.166667	0.0065		0	0.062		943	0.087626236	0.087629	0.005433	
180			0				0												0	0	0.062		0				
0	0.072115385	0.00302885	16	0.341083493	0.006613503		59	0.505124451	0.01767936	1	0.083333	0.00325	3	0.25	0.09975	1	0.083333	0.00975	0	0	0.062		0				
3	0.067307692	0.00282692	42	0.649178117	0.01168521		0			2	0.166667	0.0065	1	0.083333	0.00325	1	0.083333	0.00325	0	0.00325	0.062		0				
2			0				21	0.161290323	0.00564516										0	0.00325	0.062		0				
4	0.076923077	0.00323077	0				0	0.538433382	0.01884517	5	1	0.039	3	0.25	0.00975	1	0.083333	0.00325	0	0.00325	0.062		25	0.001953125	0.0001211	0.0001211	
0			0				150												0	0.00325	0.062		2000	0.32690012	0.32690076	0.02026827	
0	0.067307692	0.00282692	10	0.012023871	0.00021641		28	0.260080645	0.00910282	5	1	0.039	3	0.083333	0.00975	1	0.083333	0.00325	0	0.0065	0.062		0				
2			0				4	0.017857143	0.000625				1	0.083333	0.00325	2	0.166667	0.0065	0	0	0.062		0				
0			0				0			5	1	0.039							0	0	0.062		0				
19	0.143696581	0.00603526	54	0.776090601	0.01398431		32	0.316532258	0.01107863	5	1	0.039	2	0.166667	0.0065	1	0.083333	0.00325	0	0.00325	0.062		4261	0.955237077	0.95523585	0.05922479	
0			0				0												0	0.00325	0.062		254	0.019844375	0.0198444	0.00123035	
0	0.125	0.00525	30	0.549461288	0.0099903		90	0.516471449	0.0180765	1	0.083333	0.00325	1	0.083333	0.00325				0	0.00325	0.062		0				
0			0				0						2	0.166667	0.0065				0	0.00325	0.062		1410	0.165237582	0.1653423	0.01024502	
14			0				4	0.017857143	0.000625	5	1	0.039	3	0.25	0.00975	2	0.166667	0.0065	0	0.00325	0.062		434	0.034003116	0.034002	0.00210815	
0			0				0						2	0.166667	0.0065				0	0.0065	0.062		0				
35	0.203523641	0.00854808	300	1	0.018		60	0.594490483	0.01769217	5	1	0.039	1	0.083333	0.00325				1	0.00325	0.062		743	0.063466948	0.063469	0.00393598	
0			0				12	0.053571429	0.001875	1	0.083333	0.00325	1	0.083333	0.00325				0	0	0.062		0				
0			0				0												0	0	0.062		1750	0.247401459	0.2474078	0.01533928	
0			29	0.539975436	0.00971956		0			3			3	0.25	0.00975				0	0.00325	0		1200	0.126120581	0.1261243	0.00781971	
0			3	5.33594E-05	9.6031E-07		21	0.161290323	0.00564516				1	0.083333	0.00325				1	0.00325	0		813	0.071412801	0.0714151	0.00442773	
0			0				0												0	0	0.062		80	0.00625	0.0062502	0.00038751	
0			0				0			5	1	0.039	1	0.083333	0.00325	1	0.083333	0.00325	0	0.00325	0.062		60				
0			0				0			5	1	0.039	1	0.083333	0.00325	1	0.083333	0.00325	0	0.00325	0.062		2720	0.669801	0.6698101	0.04152823	
0			0				0												0	0	0.062		12	0.0009375	0.0009375	5.8127E-05	
0			0				0			1	0.083333	0.00325	1	0.083333	0.00325	1	0.25	0.00975	1	0.00975	0		547	0.043801581	0.043803	0.00271579	
0			0				0			5	1	0.039	1	0.083333	0.00325	1	0.083333	0.00325	0	0.00325	0.062		80	0.00625	0.0062502	0.00038751	
0			0				0												0	0	0		2062	0.349670457	0.3496782	0.02168905	
0			0				0												0	0	0		1037	0.10064332	0.1006464	0.0062498	
0			0				0												0	0	0		2	0.00015625	0.0001563	9.687BE-06	
0			0				0												0	0	0.062		0				
0			0				0												0	0	0.062		370	0.03328125	0.0132817	0.00082347	
0			0				0												0	0.00325	0		750	0.064238284	0.0642403	0.0039829	
0			0				0												0	0	0		4	0.0003125	0.0003125	1.9376E-05	
0			0				0						1	0.083333	0.00325				0	0	0		100	0.0078125	0.0078128	0.00048439	
0			0				0												0	0	0		1	0.000078125	7.813E-05	4.8439E-06	
0			0				0												0	0	0		124	0.00956878	0.00956878	0.00060065	
0			0				0												0	0	0		1382	0.159566685	0.1595713	0.00989342	
0			0				0												0	0	0		196	0.0151125	0.015313	0.00094941	
0			0				0												0	0	0		21	0.001640625	0.0016407	0.00010172	
0			0				0												0	0	0		1340	0.153334518	0.1533389	0.00938301	
0			0				0												0	0	0		14	0.00109375	0.00109938	6.7815E-05	
0			0				0												0	0	0		70	0.005468675	0.0054689	0.00033907	
0			0				0												0	0	0		247	0.019236875	0.0192375	0.00119645	
0			0				0												0	0	0		5	0.000390625	0.0003906	2.422E-05	
0	0.805627651	0.00011013	54		0.0176153		54	0.50329429	0.0176153										0	0	0		4627	0.972155799	0.9721567	0.06027372	

EVENT1	DAMCOST	Score	Utility	Score	INJCOST	Score	Utility	Score	TOTFTL	Score	Score	TOTAL DISABILITY	Score	Score	PARTIAL DISABILITY	Score	Score	Score
32	91994	6.65565E-06	4.33058E-06	1.022E-06	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32	74000	1.29058E-06	8.3972BE-07	1.981BE-07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32	26749	1.59194E-08	1.03581E-08	2.445E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32	70000	8.95952E-07	5.82961E-07	1.3758E-07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32	16021	5.03902E-09	3.27875E-09	7.7377E-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32	55770	2.4397TE-07	1.58713E-07	3.7456E-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32	61108	3.97667E-07	2.58746E-07	6.1064E-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32	15519	4.7485TE-09	3.08976E-09	7.2871E-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32	25160	1.35682E-08	8.82829E-09	2.0835E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32	76731	1.65561E-06	1.07724E-06	2.5423E-07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32	12237	3.14616E-09	2.04708E-09	4.831E-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32	11071	2.65633E-09	1.72855E-09	4.0789E-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32	2533	4.90115E-08	3.18899E-08	2.131E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32	15788	1.387BE-08	9.03965E-09	7.5525E-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32	149905	0.001102364	0.000874845	0.000200009	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32	218244	0.139664694	0.090976485	0.02102252	360	5.83187E-07	1.361E-07	6.3968E-09	0	0	0	0	0	0	0	0	0	0
32	43458	7.84217E-08	5.10299E-08	1.2042E-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32	129126	0.000196128	0.000127623	3.0119E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32	83802	3.15454E-06	2.05254E-06	4.84E-07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32	882327	0.380470223	0.288905854	0.06836816	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32	10730030	0.690943385	0.601560013	0.14196816	1100932	0.749599683	0.49941949	0.02347272	1	0.176	0	0	0	0	0	0	0	0
32	48984	1.30743E-07	8.50694E-08	2.0076E-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32	15156	4.54198E-09	2.95503E-09	6.9739E-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32	35115	3.5898TE-08	2.33319E-08	5.5063E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32	190817	0.05414427	0.035260049	0.00849822	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32	75337	1.45663E-06	9.47773E-07	2.2367E-07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32	623607	0.214116637	0.159954756	0.03772572	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32	12399	3.45921E-09	2.25078E-09	5.311E-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32	30037	2.20122E-08	1.43325E-08	3.381E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32	35461	3.7066E-08	2.41199E-08	5.6902E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32	13500000	0.374530164	0.664647236	0.15685675	461800	0.143362278	0.40037962	0.00189784	1	0.176	0	0	0	0	0	0	0	0
32	105956	2.37826E-05	1.54531E-05	3.6474E-06	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32	46449	1.03465E-07	6.73208E-08	1.5880E-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32	10000	2.2675BE-09	1.47542E-09	3.482E-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32	20647	8.47986E-09	5.51751E-09	1.3021E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32	30711	2.35029E-08	1.52924E-08	3.609E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32	37306	4.41182E-08	2.87067E-08	6.7746E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32	88812	4.98024E-06	3.24045E-06	7.6475E-07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32	24820	1.31078E-08	8.53075E-09	2.0128E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32	130499	0.000222263	0.000144631	3.4133E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32	14377	4.12594E-09	2.68459E-09	6.335E-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32	27861	1.77793E-08	1.15683E-08	2.7301E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32	10000	2.2675BE-09	1.47542E-09	3.482E-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32	25064	1.34368E-08	8.7427TE-09	2.0633E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32	717567	0.263303142	0.194945061	0.04600703	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32	48288	1.22616E-07	7.97815E-08	1.8828E-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32	266662	0.134113036	0.099169417	0.02517519B	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32	22919	1.11556E-09	7.25848E-10	1.713E-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32	6026	3.12861E-08	2.035665E-08	4.804E-09	19572	4.78837E-05	1.1176E-05	5.2536E-07	0	0	0	0	0	0	0	0	0	0
32	33683	3.12861E-08	2.035665E-08	4.804E-09	120	1.93458E-07	4.5149E-08	2.122E-09	0	0	0	0	0	0	0	0	0	0
32	1437384	3.95907E-09	0.409009293	0.09653619	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32	14048	2.2675BE-09	1.47542E-09	3.482E-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32	10000	2.2675BE-09	1.47542E-09	3.482E-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32	136222	0.000374184	0.000243634	5.7498E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32	28280	1.83505E-08	1.20571E-08	3.2063E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32	45456	9.1797TE-08	5.97292E-08	5.5995E-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32	168191	0.006899064	0.00449615	0.00106109	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32	27614	1.73498E-08	1.12888E-08	2.6642E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0
33	11495	2.82098E-09	1.83355E-09	4.3318E-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
33	49053	1.31577E-07	8.56121E-08	2.0204E-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0
33	65970	6.2014BE-07	4.03507E-07	9.5228E-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0
33	33768	3.15412E-08	2.05206E-08	4.8431E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0
33	107862	2.82577E-05	1.83864E-05	4.3392E-06	0	0	0	0	0	0	0	0	0	0	0	0	0	0
33	10000	2.2675BE-09	1.47542E-09	3.482E-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
33	48575	1.28305E-08	1.20571E-08	2.8455E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0
33	13404	3.64656E-09	2.37268E-09	5.5995E-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
33	10000	2.2675BE-09	1.47542E-09	3.482E-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
33	10247128	0.681466853	0.590841789	0.13943866	19762	4.8355E-05	1.1333E-05	5.3265E-07	0	0	0	0	0	0	0	0	0	0
34	22902	1.07617E-08	7.00214E-09	1.6525E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0
34	98937	1.25303E-05	8.15299E-06	1.9241E-06	0	0	0	0	0	0	0	0	0	0	0	0	0	0
34	1500000	0.509812066	0.410214356	0.09681059	0	0	0	0	0	0	0	0	0	0	0	0	0	0
34	79240	2.08111E-06	1.35417E-06	3.1958E-07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
34	64978	5.64426E-07	3.68551E-07	8.697BE-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0
34	189315	0.047119576	0.031315871	0.007390055	0	0	0	0	0	0	0	0	0	0	0	0	0	0
34	100170	1.40202E-05	9.12243E-06	2.1539E-06	0	0	0	0	0	0	0	0	0	0	0	0	0	0
34	78067	1.87011E-06	1.21681E-06	2.871TE-07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
34	10918530	0.594642534	0.605766121	0.1429608	234780	0.126382359	0.03454272	0.00162351	0	0	0	0	0	0	0	1	0.25	0.00035
34	127114	0.000163278	0.000106245	2.5074E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0
35	10028403	0.677174565	0.586019952	0.13829929	3010000	0.851328628	0.66690756	0.03134466	5	0.625	0.22	0	0	0	0	0	0	0
35	1923133	0.518115683	0.418389018	0.09873981	0	0	0	0	0	0	0	0	0	0	0	0	0	0
35	59254	3.35931E-07	2.18577E-07	5.1884E-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0
35	10183200	0.680213211	0.589429002	0.13911654	3064	5.24438E-06	1.2239E-06	5.7525E-08	0	0	0	0	0	0	0	0	0	0

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EVENT1	DAMCOST	Score	Utility	Score	INJCOST	Score	Utility	Score	TOTFTL	Score	Score	TOTAL DISABILITY	Score	Score	Score	PARTIAL DISABILITY	Score	Score	Score
35	146869	0.000967649	0.000642881	0.000815172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
35	167924	0.006725355	0.004307802	0.001103552	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
35	15539900	0.783515243	0.712864093	0.16824065	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36	36367	4.03757E-08	2.62709E-08	6.1999E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36	1500000	0.509812066	0.410214356	0.09681059	18300	4.3500E-05	1.0152E-05	4.771E-07	0	0	0	0	0	0	0	0	0	0	0
36	166519	0.005917274	0.003693931	0.0009108	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36	54901	2.25242E-07	1.46556E-07	3.4587E-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36	27386	1.69617E-08	1.10363E-08	2.6046E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36	50526	1.50694E-07	9.80508E-08	2.314E-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36	37000	4.36633E-08	2.78895E-08	6.5819E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36	15528	4.75072E-09	3.091E-09	7.295E-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36	10112506	0.678625913	0.587862561	0.13873693	1177361	0.753672372	0.59535723	0.02373179	1	0.5	0.176	0	0	0	0	0	0	0	0
36	29978	2.18666E-08	1.42484E-08	3.36078E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36	41595	6.59411E-08	4.29053E-08	1.01226E-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36	42376	7.09165E-08	4.61426E-08	1.0891E-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36	13016	3.46694E-09	2.2558E-09	5.3237E-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36	137697	0.000428234	0.000276683	6.5769E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36	33819	3.16953E-08	2.0623E-08	4.867E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36	18000	1.26758E-09	1.47542E-09	3.483E-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36	62379	4.46676E-07	2.90635E-07	6.859E-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36	130037	0.000313101	0.000138668	1.27126E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36	11498	1.82217E-09	1.83627E-09	4.333E-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36	29644	1.18433E-08	1.37826E-08	3.253E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36	64777	5.5612E-07	3.61846E-07	8.5396E-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36	1055868	0.591096361	0.401659634	0.09474994	33060	0.000103241	2.4564E-05	1.1545E-06	0	0	0	0	0	0	0	0	0	0	0
36	11493	1.82019E-09	1.83498E-09	4.3306E-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36	151448	0.001490948	0.000978056	0.00023031	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36	10966	2.61649E-09	1.70245E-09	4.0178E-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36	51758	1.68776E-07	1.09816E-07	2.5917E-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36	16881	3.61419E-09	3.61449E-09	8.5255E-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36	45379	9.28494E-08	6.04135E-08	1.4258E-08	2600	4.05236E-06	9.4574E-07	4.445E-08	0	0	0	0	0	0	0	0	0	0	0
36	25357	1.38415E-08	9.00615E-09	2.1255E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36	11825	2.35563E-09	1.53118E-09	3.6135E-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36	14516	4.19796E-09	2.73145E-09	6.4462E-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36	169494	0.00775968	0.005064663	0.00119526	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36	18009	6.32399E-09	4.11675E-09	9.7391E-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36	63550	4.97547E-07	3.23735E-07	7.6401E-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36	13360	3.62587E-09	2.35921E-09	5.567E-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36	13173	2.43444E-08	1.5846E-08	3.7382E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36	22317	1.1024E-08	6.5873E-09	1.5546E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36	44078	8.31677E-08	5.40489E-08	1.2756E-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36	19494	7.48218E-09	4.86836E-09	1.1489E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36	14148	4.00927E-09	2.60867E-09	6.1565E-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36	88759	4.94722E-06	3.21897E-06	7.5968E-07	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36	48544	1.25546E-07	8.16876E-08	1.9278E-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36	157331	0.002559598	0.001667149	0.00039345	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36	43535	4.29605E-08	2.79527E-08	6.5908E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36	11255	2.72698E-09	1.77434E-09	4.1874E-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36	196895	0.094199859	0.063678148	0.01502804	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36	26349	1.53951E-08	9.9519E-09	2.3486E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36	28180	1.834868E-08	1.19387E-08	2.8175E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36	101632	1.60182E-05	1.04324E-05	2.4597E-06	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36	106528	2.39092E-05	1.55569E-05	3.6714E-06	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36	11265	2.730866E-09	1.77686E-09	4.1934E-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36	451480	0.163391586	0.118091976	0.02786971	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36	32056	2.67657E-08	1.74154E-08	4.11E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
37	140450	0.000550317	0.000358149	8.4523E-05	3090	5.29171E-06	1.235E-06	5.8044E-08	0	0	0	0	0	0	0	0	0	0	0
37	140450	0.000550317	0.000358149	8.4523E-05	480000	0.146857575	0.04121009	0.00193637	2	0.53125	0.187	0	0	0	0	0	0	0	0
37	922704	0.417023435	0.322491979	0.07610811	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
37	922704	0.417023435	0.322491979	0.07610811	395000	0.136890034	0.037923	0.00178238	2	0.53125	0.187	0	0	0	0	0	0	0	0
37	11301843	0.702164718	0.661357952	0.14498848	3010000	0.851328628	0.66690756	0.03134466	5	0.635	0.22	0	0	0	0	0	0	0	0
37	15107563	0.776848667	0.70254742	0.165800119	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
38	104093	2.00445E-05	1.30421E-05	3.078E-06	0	0	0	0	3	0.5625	0.198	0	0	0	0	0	0	0	0
38	5911210	0.59637829	0.49818354	0.11757132	2740000	0.836941076	0.6406251	0.030010938	5	0.625	0.22	0	0	0	0	0	0	0	0
38	348844	0.147358927	0.010804786	0.02402593	272522	0.128174138	0.03511293	0.00165031	0	0	0	0	0.25	0	0	1	0.25	0	0.0035
38	3650593	0.552015585	0.452335717	0.10675123	2020000	0.798574271	0.57488233	0.02701947	3	0.5625	0.198	0	0	0	0	0	0	0	0
38	17010160	0.81418548	0.748666095	0.17668853	2200000	0.808165972	0.5907462	0.02776507	2	0.53125	0.187	0	0	0	0	0	0	0	0
39	5879892	0.595763641	0.49753715	0.11741877	932	1.52736E-06	3.5645E-07	1.6753E-08	0	0	0	0	0	0	0	0	0	0	0
40	31523	2.54347E-08	1.65428E-08	3.9041E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
40	21885	9.67443E-09	6.29477E-09	1.4856E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
40	152855	0.00170396	0.001109461	0.00026183	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
40	31504	2.5378E-08	1.65125E-08	3.897E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table (rotated 90° on page). Columns: EVENT1 | DAMCOST | Score | Utility | Score | INJCOST | Score | Utility | Score | TOTFTL | Score | Score | TOTAL DISABILITY | Score | Score | PARTIAL DISABILITY | Score | Score

EVENT1	DAMCOST	Score	Utility	Score	INJCOST	Score	Utility	Score	TOTFTL	Score	Score	TOTAL DISABILITY	Score	Score	PARTIAL DISABILITY	Score	Score
40	17077	5.70193E-09	3.71002E-09	8.7556E-10	0	0	0	0	0	0	0	0	0	0	0	0	0
40	94945	8.70923E-06	5.66678E-06	1.3374E-06	0	0	0	0	0	0	0	0	0	0	0	0	0
40	77597	1.79166E-06	1.16576E-06	2.7512E-07	0	0	0	0	0	0	0	0	0	0	0	0	0
40	20091	7.98567E-09	5.19596E-09	1.2262E-09	0	0	0	0	0	0	0	0	0	0	0	0	0
40	79437	2.11893E-06	1.37871E-06	3.2538E-07	0	0	0	0	0	0	0	0	0	0	0	0	0
40	25000	1.33498E-08	8.68617E-09	2.0499E-09	125000	0.06607457	0.00142795	6.7114E-05	8	0.5	0.176	0	0	0	0	0	0
40	0	0	0	0	1090	1.79202E-06	4.1822E-07	1.9656E-08	1	0	0	0	0	0	0	0	0
40	0	0	0	0	0	0	0	0	0	0	0.176	0	0	0	0	0	0
40	0	0	0	0	1100000	0.749550019	0.49934744	0.02346933	1	0.5	0	0	0	0	0	0	0
40	0	0	0	0	7436	1.39844E-05	3.2637E-06	1.5339E-07	0	0	0	0	0	0	0	0	0
40	39219	5.28088E-08	3.45066E-08	8.1091E-09	0	0	0	0	0	0	0.176	0	0	0	0	0	0
40	63427	4.91581E-07	3.19853E-07	7.5485E-08	0	0	0	0	0	0	0	0	0	0	0	0	0
40	173354	0.811029897	0.007208706	0.00170125	0	0	0	0	0	0	0	0	0	0.0105	0	0	0
40	0	0	0	0	625000	0.177093388	0.05168489	0.00242919	1	0.5	0.176	1	0.75		0	0	0
40	150000	0.001313686	0.000855316	0.00002018	0	0	0	0	0	0	0	0	0	0	0	0	0
40	23990	1.07595E-08	7.00078E-09	1.6522E-09	0	0	0	0	0	0	0	0	0	0	0	0	0
40	69643	8.67235E-07	5.64273E-07	1.3317E-07	0	0	0	0	0	0	0	0	0	0	0	0	0
40	152855	0.00170396	0.001109461	0.00026183	0	0	0	0	0	0	0	0	0	0	0	0	0
40	1973901	0.519111961	0.419373503	0.098697215	0	0	0	0	0	0	0	0	0	0	0	0	0
40	85900	3.51852E-06	2.28937E-06	5.4029E-07	0	0	0	0	0	0	0	0	0	0	0	0	0
40	98055	1.15637E-05	7.52407E-06	1.7757E-06	0	0	0	0	0	0	0	0	0	0	0	0	0
40	20000	7.90714E-09	5.14487E-09	1.3142E-09	0	0	0	0	0	0	0	0	0	0	0	0	0
40	0	0	0	0	270000	0.128043845	0.03507138	0.00164835	1	0.5	0.176	0	0	0	0	0	0
40	436857	0.16349958	0.113708071	0.00268351	0	0	0	0	0	0	0	0	0	0	0	0	0
40	47276	1.11682E-07	7.26669E-08	1.7149E-08	20892	5.26763E-05	1.2294E-05	5.7783E-07	0	0	0	0	0	0	0	0	0
40	21370	9.16108E-09	5.96076E-09	1.4067E-09	13955	3.01108E-05	7.0275E-06	3.3029E-07	0	0	0	0	0	0	0	0	0
40	0	0	0	0	3918	6.82507E-06	1.5928E-06	7.4863E-08	0	0	0	0	0	0	0	0	0
40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
40	13597	3.59639E-09	2.34003E-09	5.5325E-10	0	0	0	0	1	0.5	0.176	0	0	0	0	0	0
40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
40	17134	5.73956E-09	3.73455E-09	8.8134E-10	0	0	0	0	0	0	0	0	0	0	0	0	0
40	46000	9.9257E-08	6.45827E-08	1.5242E-08	0	0	0	0	0	0	0	0	0	0	0	0	0
40	20232	8.10863E-09	5.27597E-09	1.2451E-09	0	0	0	0	0	0	0	0	0	0	0	0	0
41	1018	1.48199E-10	9.64274E-11	2.2757E-11	12080	2.50179E-05	5.8388E-06	2.7443E-07	0	0	0	0	0	0	0	0	0
41	28725	1.35603E-08	1.25977E-08	2.9729E-09	0	0	0	0	0	0	0	0	0	0	1	0.25	0.00035
41	0	0	0	0	115000	0.004048081	0.00094941	4.4622E-05	0	0	0	0	0	0	1	0	0
41	0	0	0	0	7203	1.34379E-05	3.1362E-06	1.474E-07	0	0	0	0	0	0	0	0	0
41	67239	6.96346E-07	4.53085E-07	1.0693E-07	0	0	0	0	0	0.5	0.176	0	0	0	0	0	0
41	358128	0.14909572	0.103070202	0.024316	0	0	0	0	0	0	0	0	0	0	0	0	0
41	22459	1.02757E-08	6.686E-09	1.5779E-09	10397	2.07625E-05	4.8456E-06	2.2775E-07	0	0	0	0	0	0	0	0	0
41	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
41	376000	0.152572184	0.013	0.024939	0	0	0	0	1	0.5	0.176	0	0	0	0	0	0
41	39860	5.69765E-08	3.64868E-08	8.6109E-09	7922	1.50056E-05	3.502E-06	1.646E-07	0	0	0	0	0	0	0	0	0
41	0	0	0	0	172156	0.040737775	0.00999534	0.00046978	1	0.5	0	0	0	0	0	0	0
41	0	0	0	0	41491	0.000172266	4.0213E-05	1.8899E-06	0	0	0	0	0	0	0	0	0
41	240024	0.13010669	0.089251738	0.021063	0	0	0	0	0	0	0	0	0	0	0	0	0
41	106791	2.56305E-05	1.66769E-05	3.9358E-06	0	0	0	0	0	0	0	0	0	0	0	0	0
41	0	0	0	0	127330	0.006674408	0.00015704	7.3809E-05	1	0.5	0.176	0	0	0	0	0	0
41	133737	0.000299531	0.000194266	4.5847E-05	2895	4.93796E-06	1.1524E-06	5.4164E-08	0	0	0	0	0	0	0	0	0
41	4765	8.28975E-10	5.39382E-10	1.2729E-10	0	0	0	0	0	0	0	0	0	0	0	0	0
41	29756	2.14173E-08	1.39354E-08	3.2897E-09	22682	5.93958E-05	1.3990E-05	6.5374E-07	0	0	0	0	0	0	0	0	0
41	0	0	0	0	19896	4.90366E-05	1.1445E-05	5.379E-07	0	0	0	0	0	0	0	0	0
41	0	0	0	0	6580	1.21157E-05	2.8276E-06	1.329E-07	0	0	0	0	0	0	0	0	0
41	1235	1.81606E-10	1.18164E-10	2.7887E-11	36240	0.000131841	3.0774E-05	1.4464E-06	0	0	0	0	0	0	0	0	0
41	12108	3.0706E-09	1.99792E-09	4.7151E-10	0	0	0	0	0	0	0	0	0	0	0	0	0
41	58309	3.0781E-07	2.0028E-07	4.7266E-08	0	0	0	0	0	0	0	0	0	0	0	0	0
41	62576	4.54793E-07	2.95916E-07	6.9836E-08	0	0	0	0	0	0	0	0	0	0	0	0	0
41	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
41	75848	1.57252E-06	9.93895E-07	2.3456E-07	0	0	0	0	0	0	0	0	0	0	0	0	0
41	192835	0.065073282	0.043470274	0.01025898	0	0	0	0	0	0	0	0	0	0	0	0	0
41	619933	0.22308258	0.15901484	0.03752731	0	0	0	0	0	0	0	0	0	0	0	0	0
41	70000	8.95952E-07	5.82961E-07	1.3758E-07	0	0	0	0	0	0	0	0	0	0	0	0	0
41	220755	0.127574865	0.087424175	0.02063211	0	0	0	0	0	0	0	0	0	0	0	0	0
41	169535	0.007786698	0.005083677	0.000119975	0	0	0	0	0	0	0	0	0	0	0	0	0
41	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
41	0	0	0	0	1950	3.26244E-06	7.6138E-07	3.5785E-08	0	0	0	0	0	0	0	0	0
41	10000	2.26758E-09	1.47542E-09	3.482E-10	750	1.22458E-06	2.8579E-06	1.3432E-08	0	0	0	0	0	0	0	0	0
41	0	0	0	0	11056	2.33945E-05	5.3265E-06	2.4565E-07	0	0	0	0	0	0	0	0	0
41	10000	2.26758E-09	1.47542E-09	3.482E-10	0	0	0	0	0	0	0	0	0	0	0	0	0
44	512578	0.18594377	0.130519451	0.030080259	0	0	0	0	0	0	0	0	0	0	0	0	0
44	25145	1.35476E-08	8.81488E-09	2.0803E-09	0	0	0	0	0	0	0	0	0	0	0	0	0
44	84578	3.38575E-06	2.20298E-06	5.199E-07	0	0	0	0	0	0	0	0	0	0	0	0	0
44	145135	0.000843318	0.00605489	0.00012954	0	0	0	0	0	0	0	0	0	0	0	0	0
44	23790	1.17971E-08	7.67592E-09	1.8115E-09	0	0	0	0	0	0	0	0	0	0	0	0	0
44	401290	0.157806861	0.109492166	0.02584015	0	0	0	0	0	0	0	0	0	0	0	0	0
44	11600000	0.708001579	0.621071139	0.1465742	1680	2.7933E-06	6.3236E-07	3.0661E-08	0	0	0	0	0	0	0	0	0

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| DAYHOSP | Score | Score | DAYLOST | Score | Score | Score | DAYREST | Score | Score | FLSPL | Score | Score | OLSPL | Score | Score | HYSPL | Score | Score | TOTLOSS | Score | Score | Score | MHRS | Score | Utility | Score | Score |

EVENT1	DAMCOST	Score	Utility	Score	INJCOST	Score	Utility	Score	TOTFTL	Score	Score	TOTAL DISABILITY	Score	Score	PARTIAL DISABILITY	Score	Score	Score
46	12743	3.3443E-09	2.17601E-09	5.1354E-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
46	1416210	0.50816776	0.486620663	0.09643009	4800	8.5156E-06	1.9874E-06	9.3407E-08	0	0	0	0	0	0	0	0	0	0
47				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
47	18640	6.80794E-09	4.42966E-09	1.0454E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0
47	69042	8.20939E-07	5.34153E-07	1.2606E-07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
47	70434	9.3151E-07	6.06514E-07	1.4314E-07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
47	71459	1.02355E-06	6.65981E-07	1.5717E-07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
47	74653	1.36766E-06	8.91183E-07	2.1032E-07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
47	17458	5.95719E-09	3.87611E-09	9.1476E-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
47	16306	5.2117E-09	3.39105E-09	8.0025E-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
47	78328	1.91515E-06	1.24611E-06	2.9408E-07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
47	11660	2.8868E-09	1.87833E-09	4.4325E-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
47	78450	1.93657E-06	1.26005E-06	2.9737E-07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
47	88765	4.58895E-06	3.2266E-06	7.6148E-07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
47	24259	1.24295E-08	8.08736E-09	1.9086E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0
47	86336	3.97465E-06	2.58583E-06	6.1026E-07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
47	83605	3.09844E-06	2.01641E-06	4.7578E-07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
47	24259	1.24295E-08	8.08736E-09	1.9086E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0
47	11848	2.96302E-09	1.92792E-09	4.5499E-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
47	43138	7.61245E-08	4.95312E-08	1.1689E-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0
47	53045	1.89963E-07	1.23602E-07	2.917E-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0
47	83519	3.0742E-06	2.00027E-06	4.7206E-07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
47	11214	2.7111E-09	1.76403E-09	4.1631E-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
47	49356	1.35802E-07	8.83613E-08	2.0853E-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0
47	26526	1.55685E-08	1.01298E-08	2.3906E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0
47	11214	2.7111E-09	1.76403E-09	4.1631E-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
47	43010	7.5124E-08	4.89454E-08	1.1551E-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0
47	23114	1.09014E-08	7.09416E-09	1.6893E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0
47	568210	0.20376053	0.144082916	0.03460357	0	0	0	0	0	0	0	0	0	0	0	0	0	0
47	10000	2.26758E-09	1.47542E-09	3.4831E-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
47	10000	2.26758E-09	1.47542E-09	3.4831E-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
47	26737	1.59003E-08	1.03457E-08	2.4416E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0
47	30857	2.3838E-08	1.55105E-08	3.6605E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0
47	102454	1.72638E-05	1.12331E-05	2.651E-06	0	0	0	0	0	0	0	0	0	0	0	0	0	0
47	15413	4.68331E-09	3.04853E-09	7.1946E-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
47	70302	9.20989E-07	5.99253E-07	1.4142E-07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
48				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
48	922704	0.41702345	0.312291979	0.07610811	3664	6.34921E-06	1.4818E-06	6.9644E-08	0	0	0	0	0	0	0	0	0	0
48	4691994	0.57245175	0.473253031	0.11169771	0	0	0	0	0	0	0	0	0	0	0	0	0	0
48	1146985	0.502882491	0.403434138	0.09521046	7902	1.4961E-05	3.4917E-06	1.6411E-07	0	0	0	0	0	0	0	0	0	0
48	398053	0.15711546	0.108098445	0.02571962	0	0	0	0	0	0	0	0	0	0	0	0	0	0
48	923860	0.41813628	0.323503263	0.07634677	7622	1.4346E-05	3.3481E-06	1.5736E-07	0	0	0	0	0	0	0	0	0	0
49				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
49	13592	3.7359E-09	2.43081E-09	5.7367E-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
49	17770	6.17293E-09	4.01649E-09	9.4789E-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
49	18499	6.70157E-09	4.36045E-09	1.0291E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0
49	25160	1.35602E-08	8.82829E-09	2.0835E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0
49	60000	3.59136E-07	2.33866E-07	5.5178E-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0
49	20000	7.90714E-09	5.14487E-09	1.2142E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0
49	10508	2.44723E-09	1.59233E-09	3.7579E-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
49	16399	5.26902E-09	3.42834E-09	8.0909E-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	30031	2.19993E-08	1.43141E-08	3.3781E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	923874	0.41814709	0.32315537	0.07634967	43000	0.000185554	4.3314E-05	2.0358E-06	1	0.5	0.176	0	0	0.25	1	1	0.25	0.0035
50	43337	7.826899E-08	5.09265E-08	1.2019E-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	43507	7.87794E-08	5.12587E-08	1.2097E-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	28576	1.90787E-08	1.24138E-08	2.9297E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	10918	2.59842E-09	1.69069E-09	3.99E-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	349309	0.1744482	0.10186772	0.02404078	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	23709	1.16992E-08	7.61118E-09	1.7965E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	1708759	0.51390878	0.414240612	0.09776078	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	231904	0.12902674	0.0884688	0.02087864	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	20550	8.39163E-09	5.46023E-09	1.2886E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	28100	1.82043E-08	1.18448E-08	2.7954E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	24278	1.24028E-08	8.07001E-09	1.9045E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	926784	0.420958267	0.326080331	0.07695496	127000	0.006585931	0.00154939	7.2821E-05	1	0.5	0.176	0	0	0.25	1	1	0.25	0.0035
50	103289	1.86285E-05	1.21121E-05	2.8695E-06	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	11276	2.73512E-09	1.77964E-09	4.1999E-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	59003	3.28001E-07	2.13418E-07	5.0367E-08	24201	6.58715E-05	1.5374E-05	7.2259E-07	0	0	0	0	0	0	0	0	0	0
50	1500000	0.509912066	0.410214356	0.09681059	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	15510	4.74043E-09	3.08441E-09	7.2792E-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	29853	2.16269E-08	1.40679E-08	3.32E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	63759	8.7646E-07	5.70279E-07	1.3459E-07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	11502	2.82375E-09	1.8373E-09	4.336E-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	66149	6.30371E-07	4.10158E-07	9.6797E-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	999275	0.499133075	0.399781289	0.09434838	75526	0.000794935	0.0001857	8.7279E-06	0	0	0	0	0	0	0	0	0	0
50	49138	1.32612E-07	8.62855E-08	2.0363E-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	11086	2.66201E-09	1.73207E-09	4.0877E-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	32126	2.694675E-08	1.75331E-08	4.1378E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	23641	1.161755E-08	7.55904E-09	1.7839E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	34636	3.426235E-08	2.22931E-08	5.2612E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	10000000	0.67661718	0.585388247	0.13815163	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	32211	2.71681E-08	1.76772E-08	4.1718E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	71883	1.063915E-06	6.92251E-07	1.6337E-07	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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EVENT1	DAMCOST	Score	Utility	Score	INACOST	Score	Utility	Score	TOTTTL	Score	Score	TOTAL DISABILITY	Score	Score	PARTIAL DISABILITY	Score	Score	Score
50	200000	0.125	0.085569363	0.02019437	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	101462	1.57718E-05	1.02622E-05	2.4219E-06	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	253060	0.131900714	0.09015489899	0.02136956	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	3756000	0.554084105	0.454357262	0.107324719	135844	0.069418124	0.0022234	0.0001045	0	0	0	0	0	0	0	0	0	0
50	227400	0.1284322	0.088042613	0.02077806	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	28612	1.91464E-08	1.24578E-08	2.94E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	1500000	0.589812065	0.410214356	0.09681059	210000	0.125573746	0.03422274	0.00160847	0	0	0	0	0	0	0	0	0	0
50	39988	5.67832E-08	3.69264E-08	8.7146E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	35919	3.86599E-08	2.51805E-08	5.9426E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	266031	0.133753692	0.091890084	0.02116624	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	10546	2.46101E-09	1.60118E-09	3.779E-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	16854	5.55658E-09	3.61545E-09	8.532E-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	29356	2.06771E-08	1.34537E-08	3.1751E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	23470	1.14143E-08	7.42685E-09	1.7527E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	40148	5.76079E-08	3.74823E-08	8.846E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	31081	2.4161E-08	1.58507E-08	3.7408E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	40036	5.70076E-08	3.70926E-08	8.7539E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	277348	0.135427724	0.093104828	0.02197274	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	12580	3.23769E-09	2.10664E-09	4.9717E-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	14237	4.05432E-09	2.63799E-09	6.2237E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	23344	1.14931E-08	7.79839E-09	1.8404E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	359312	0.149320562	0.103243187	0.02307E-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	14205	4.03808E-09	2.62742E-09	3.0944E-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	53688	2.015165-07	1.31119E-07	3.3473E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	29626	2.11471E-08	1.37596E-08	7.8686E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	38898	5.12428E-08	3.33411E-08	6.2742E-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	14239	4.05931E-09	2.63855E-09	0.00062215	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	163344	0.004485488	0.002638248	2.0031E-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	48959	1.30442E-07	8.48716E-08	1.6639E-05	1.2245E-06	2.8579E-07	1.3432E-08	0	0	0	0	0	0	0	0	0	0	0
50	122607	0.000108823	7.44241E-05	0.14279674	750	3.43751E-05	8.0228E-06	3.7707E-07	0	0	0	0	0	0	0	0	0	0
50	10087414	0.694031990	0.65807049	2.3764E-06	15423	0	0	0	0	0	0	0	0	0	0	0	0	0
50	101254	1.547E57E-05	1.00605E-05	5.0593E-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	12601	3.24172E-09	2.13529E-09	1.567E-07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	71426	1.00147E-06	6.63979E-07	5.7899E-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	13664	3.77053E-09	2.45333E-09	0.00249289	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	177525	0.016139136	0.010563085	1.674E-06	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	97409	1.09016E-05	7.093E3E-06	6.5801E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	36997	4.29512E-08	2.78816E-08	0.00067437	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	163227	0.00438392	0.00285 7488	0.03824091	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	466995	0.171782347	0.119876749	3.4664E-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	54925	2.25739E-07	1.46879E-07	0.0312088	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	520197	0.188318959	0.13220067	2.1132E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	25295	1.37555E-08	8.94983E-09	1.5E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	26974	1.62806E-08	1.05932E-08	8.8594E-07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	90415	5.76363E-06	3.75018E-06	1.3396E-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	44606	8.72565E-08	5.67614E-08	0.02085525	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	230864	0.128885652	0.088369883	4.335BE-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	32612	2.82357E-08	1.83719E-08	3.5613E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	169808	0.007984763	0.0001 50914	0.08123066	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	13292	3.59406E-09	2.33851E-09	5.5189E-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	26942	1.62388E-08	1.05595E-08	2.492E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	33840	3.17588E-08	2.06642E-08	4.8768E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	49451	1.36492E-07	8.881 02E-08	2.6959E-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	35104	3.58913E-08	2.33075E-08	5.5006E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	14320	4.09667E-09	2.66554E-09	6.2907E-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	10680000	0.68996159	0.60044577	0.1417053	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	97614	1.11072E-05	7.22705E-06	1.7056E-06	20532	5.13439E-05	1.1983E-05	5.6321E-07	0	0	0	0	0	0	0	0	0	0
50	10765004	0.691629719	0.602339466	0.14215311	1100000	0.749550019	0.49934744	0.02346933	1	0.5	0.176	0	0	0	0	0	0	0
50	254415	0.132091071	0.090686746	0.02140807	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	58830	3.22848E-07	2.10065E-07	4.9575E-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	102000	1.65642E-05	1.07778E-05	2.5436E-06	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	107865	2.82654E-05	1.83914E-05	4.3404E-06	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	41793	6.71691E-08	4.37043E-08	1.0314E-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	17196	5.78071E-09	3.76128E-09	8.8766E-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	135815	0.000360756	0.000234764	5.5404E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	93968	7.96736E-06	5.184 07E-06	1.2234E-06	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	266079	0.133760678	0.091895903	0.02168743	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	64258	5.30365E-07	3.45068E-07	8.1441E-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	32006	2.66371E-08	1.73317E-08	4.0903E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	51422	1.63642E-07	1.06475E-07	2.513BE-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	34064	3.2445E-08	2.11107E-08	4.9821E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	487794	0.178877773	0.125193979	0.02954578	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	11277	2.73551E-09	1.77989E-09	4.2005E-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	98938	1.25314E-05	8.15373E-06	1.9243E-06	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	26139	1.49763E-08	9.7445E-09	2.2997E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	17292	5.84489E-09	3.80304E-09	8.975 2E-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	109393	3.24877E-05	2.11388E-05	4.9887E-06	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	56007	2.49284E-07	1.62199E-07	3.8279E-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	30978	2.41192E-08	1.56934E-08	3.7036E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	148976	0.001196667	0.000779	0.00018384	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	17920	6.27886E-09	4.08541E-09	9.6416E-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	42762	7.35095E-08	4.78297E-08	1.1288E-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	30531	2.30733E-08	1.50129E-08	3.5431E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0

EVENT1	DAMCOST	Score	Utility	Score	INJCOST	Score	Utility	Score	TOTFTL	Score	Score	TOTAL DISABILITY	Score	Score	PARTIAL DISABILITY	Score	Score
50	176858	0.015178155	0.009936466	0.00234501	0	0	0	0	0	0	0	0	0	0	0	0	0
50	118485	7.43852E-05	4.8401E-05	1.1423E-05	0	0	0	0	0	0	0	0	0	0	0	0	0
50	13592	3.7359E-09	2.43081E-09	5.7367E-10	0	0	0	0	0	0	0	0	0	0	0	0	0
50	51097	1.58823E-07	1.0334E-07	2.4388E-08	0	0	0	0	0	0	0	0	0	0	0	0	0
50	16955	5.62204E-09	3.65804E-09	8.633E-10	0	0	0	0	0	0	0	0	0	0	0	0	0
50	180056	0.020312277	0.013325146	0.00314473	0	0	0	0	0	0	0	0	0	0	0	0	0
50	38332	4.85907E-08	3.1616E-08	7.4614E-09	0	0	0	0	0	0	0	0	0	0	0	0	0
50	67101	6.87626E-07	4.47412E-07	1.0559E-07	0	0	0	0	0	0	0	0	0	0	0	0	0
50	26200	1.50683E-08	9.80433E-09	2.3138E-09	0	0	0	0	0	0	0	0	0	0	0	0	0
50	52188	1.7558E-07	1.14243E-07	2.6961E-08	0	0	0	0	0	0	0	0	0	0	0	0	0
50	67864	7.37238E-07	4.79692E-07	1.1321E-07	0	0	0	0	0	0	0	0	0	0	0	0	0
50	17760	6.16592E-09	4.01192E-09	9.4681E-10	0	0	0	0	0	0	0	0	0	0	0	0	0
50	13340	3.61649E-09	2.35311E-09	5.5533E-10	0	0	0	0	0	0	0	0	0	0	0	0	0
50	792308	0.31273736	0.231419277	0.05461495	36888	0.00013638	3.1833E-05	1.4962E-06	0	0	0	0	0	0	0	0	0
50	34800	3.48011E-08	2.26437E-08	5.3439E-09	0	0	0	0	0	0	0	0	0	0	0	0	0
50	10000	2.26758E-09	1.47542E-09	3.482E-10	0	0	0	0	0	0	0	0	0	0	0	0	0
50	119348	8.04701E-05	5.23604E-05	1.2357E-05	0	0	0	0	0	0	0	0	0	0	0	0	0
50	78237	1.89933E-06	1.23582E-06	2.9165E-07	0	0	0	0	0	0	0	0	0	0	0	0	0
50	354412	0.148394993	0.102564215	0.02420515	0	0	0	0	0	0	0	0	0	0	0	0	0
50	51740	1.68497E-07	1.09634E-07	2.5874E-08	0	0	0	0	0	0	0	0	0	0	0	0	0
50	57212	2.78388E-07	1.81136E-07	4.2748E-08	0	0	0	0	0	0	0	0	0	0	0	0	0
50	6250000	0.603026689	0.505196915	0.11922647	7912	1.49835E-05	3.4969E-06	1.6435E-07	0	0	0	0	0	0	0	0	0
50	9605754	0.668880445	0.576732145	0.13610879	35310	0.00012553	2.93E-05	1.3771E-06	0	0	0	0	0	0	0	0	0
50	34714	3.45175E-08	2.24592E-08	5.3004E-09	0	0	0	0	0	0	0	0	0	0	0	0	0
50	38699	5.02947E-08	3.27248E-08	7.7231E-09	0	0	0	0	0	0	0	0	0	0	0	0	0
50	13368	3.62963E-09	2.36166E-09	5.5735E-10	0	0	0	0	0	0	0	0	0	0	0	0	0
50	35130	3.59098E-08	2.33651E-08	5.5142E-09	0	0	0	0	0	0	0	0	0	0	0	0	0
50	85764	3.77228E-06	2.45448E-06	5.7926E-07	0	0	0	0	0	0	0	0	0	0	0	0	0
50	18398	6.62622E-09	4.31142E-09	1.0175E-09	0	0	0	0	0	0	0	0	0	0	0	0	0
50	44342	8.5127E-08	5.53888E-08	1.3072E-08	0	0	0	0	0	0	0	0	0	0	0	0	0
50	75678	1.50402E-06	9.78605E-07	2.3095E-07	0	0	0	0	0	0	0	0	0	0	0	0	0
50	228440	0.128567867	0.088140515	0.02080116	0	0	0	0	0	0	0	0	0	0	0	0	0
50	575436	0.206290641	0.146024844	0.03446186	0	0	0	0	0	0	0	0	0	0	0	0	0
50	49876	1.41941E-07	9.23557E-08	2.1796E-08	0	0	0	0	0	0	0	0	0	0	0	0	0
50	86632	4.08284E-06	2.65655E-06	6.2694E-07	0	0	0	0	0	0	0	0	0	0	0	0	0
50	49098	1.32124E-07	8.59679E-08	2.0288E-08	0	0	0	0	0	0	0	0	0	0	0	0	0
50	182993	0.026544277	0.017457339	0.00411993	0	0	0	0	0	0	0	0	0	0	0	0	0
50	1970824	0.519051578	0.419313812	0.09895806	0	0	0	0	0	0	0	0	0	0	0	0	0
50	113860	4.88065E-05	3.17571E-05	7.4947E-06	0	0	0	0	0	0	0	0	0	0	0	0	0
50	37010	4.29038E-08	2.79158E-08	6.5881E-09	0	0	0	0	0	0	0	0	0	0	0	0	0
50	28031	1.80806E-08	1.17644E-08	2.7764E-09	0	0	0	0	0	0	0	0	0	0	0	0	0
50	360643	0.149574234	0.103429362	0.02440933	0	0	0	0	0	0	0	0	0	0	0	0	0
50	40346	5.86843E-08	3.81836E-08	9.0113E-09	0	0	0	0	0	0	0	0	0	0	0	0	0
50	139725	0.000515141	0.000335251	7.9119E-05	0	0	0	0	0	0	0	0	0	0	0	0	0
50	1196722	0.503860498	0.404388774	0.09543575	0	0	0	0	0	0	0	0	0	0	0	0	0
50	46764	1.06522E-07	6.93098E-08	1.6357E-08	0	0	0	0	0	0	0	0	0	0	0	0	0
50	149457	0.001250276	0.000813915	0.00019208	0	0	0	0	0	0	0	0	0	0	0	0	0
50	152580	0.001661797	0.00108199	0.00025535	0	0	0	0	0	0	0	0	0	0	0	0	0
50	12561	3.26424E-09	2.12391E-09	5.0124E-10	0	0	0	0	0	0	0	0	0	0	0	0	0
50	17219	5.79603E-09	3.77125E-09	8.9002E-10	0	0	0	0	0	0	0	0	0	0	0	0	0
50	6498665	0.607906523	0.510368526	0.12044697	1104066	0.749766685	0.49966181	0.0234841	1	0.5	0.176	0	0	0	0	0	0
50	6874690	0.615285687	0.51822763	0.12230172	4215000	0.91553974	0.7961224	0.03741775	8	0.71875	0.253	0	0	0	0	0	0
50	16422	5.28327E-09	3.43762E-09	8.1128E-10	0	0	0	0	0	0	0	0	0	0	0	0	0
50	160152	0.003312759	0.002158362	0.00050937	0	0	0	0	0	0	0	0	0	0	0	0	0
50	179000	0.018449068	0.012093749	0.00285412	0	0	0	0	0	0	0	0	0	0	0	0	0
50	10000	2.26758E-09	1.47542E-09	3.482E-10	0	0	0	0	0	0	0	0	0	0	0	0	0
50	14140	4.00523E-09	2.60605E-09	6.1503E-10	0	0	0	0	0	0	0	0	0	0	0	0	0
50	15539000	0.785315243	0.712884093	0.16824065	0	0	0	0	0	0	0	0	0	0	0	0	0
50	10000	2.26758E-09	1.47542E-09	3.482E-10	0	0	0	0	0	0	0	0	0	0	0	0	0
50	2924975	0.537775962	0.437963418	0.10335937	0	0	0	0	0	0	0	0	0	0	0	0	0
50	168544	0.007116191	0.004643526	0.00109587	0	0	0	0	0	0	0	0	0	0	0	0	0
50	10000	2.26758E-09	1.47542E-09	3.482E-10	0	0	0	0	0	0	0	0	0	0	0	0	0
50	10000	2.26758E-09	1.47542E-09	3.482E-10	0	0	0	0	0	0	0	0	0	0	0	0	0
50	10000	2.26758E-09	1.47542E-09	3.482E-10	0	0	0	0	0	0	0	0	0	0	0	0	0
50	27000	1.63229E-08	1.06207E-08	2.5065E-09	0	0	0	0	0	0	0	0	0	0	0	0	0
50	93000	7.29465E-06	4.74636E-06	1.1201E-06	0	0	0	0	0	0	0	0	0	0	0	0	0
			0	0			0	0									
51	124295	0.000126294	8.21786E-05	1.9394E-05	0	0	0	0	0	0	0	0	0	0	0	0	0
51	966744	0.462033732	0.364226058	0.08595735	762000	0.233871373	0.07356799	0.0034577	3	0.5625	0.198	0	0	0	0	0	0
51	141740	0.000618951	0.000402828	9.5067E-05	163855	0.029157674	0.0070524	0.00033146	0	0	0	0	0	0	2	0.4375	0.006125
51	88390	4.79234E-06	3.11819E-06	7.3589E-07	0	0	0	0	0	0	0	0	0	0	0	0	0
51	984138	0.481438967	0.382691031	0.09031508	2470000	0.822553524	0.61524838	0.02891667	8	0.71875	0.253	0	0	0	0	0	0
51	192260	0.061751982	0.04119595	0.00972224	0	0	0	0	0	0	0	0	0	0	0	0	0
51	37734	4.59332E-08	2.9887E-08	7.0533E-09	0	0	0	0	0	0	0	0	0	0	0	0	0
51	193778	0.070911337	0.047482775	0.01120594	2325000	0.814826876	0.60198303	0.0282932	3	0.5625	0.198	0	0	0	0	0	0
51	4616589	0.570972417	0.471726862	0.11132754	1128975	0.751094016	0.50159129	0.02357479	1	0.5	0.176	0	0	0	0	0	0
51	430865	0.164430495	0.114399328	0.02699824	0	0	0	0	0	0	0	0	0	0	0	0	0
51	25878	1.45885E-08	9.49219E-09	2.2402E-09	0	0	0	0	0	0	0	0	0	0	0	0	0
51	43641	7.97658E-08	5.19005E-08	1.2249E-08	0	0	0	0	0	0	0	0	0	0	0	0	0
51	10004000	0.676695677	0.585476348	0.13817242	0	0	0	0	0	0	0	0	0	0	0	0	0
51	53764	2.02927E-07	1.32037E-07	3.1161E-08	0	0	0	0	0	0	0	0	0	0	0	0	0
51	10300000	0.68250442	0.592011322	0.13971467	2200000	0.808165972	0.5907462	0.02776507	2	0.53125	0.187	0	0	0	0	0	0
51	19877	7.80203E-09	5.07648E-09	1.198E-09	0	0	0	0	0	0	0	0	0	0	0	0	0
51	274755	0.135039346	0.092823035	0.02190624	1115749	0.75038924	0.50056601	0.0235266	1	0.5	0.176	0	0	0	0	0	0

DAYHOSP	Score	Score	DAYLOST	Score	Score	DAYREST	Score	Score	FLSPL	Score	Score	OLSPL	Score	Score	HYSPL	Score	Score	TOTLOSS	Score	Score	MHRS	Score	Utility	Score	Score
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0		0	0	8	0.000625	0.000625	3.875E-05	0.00238
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0		0	0	351	0.027421875	0.0274228	0.00170021	0.00171
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0		0	0	36	0.0028125	0.0028126	0.00017438	0.00017
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0		0	0	646	0.05333317	0.05385	0.00033057	0.0003
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0		0	0	22	0.00171875	0.0017188	0.00016985	0.00011
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0		0	0	33	0.002578125	0.0025782	0.00015985	0.0003
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0		0	0	4	0.0003125	0.0003125	1.937E-05	1.3E-05
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0		0	0	39	0.003046875	0.003047	0.000188891	0.00019
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0		0	0	8	0.000625	0.000625	3.875E-05	3.95E-05
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0		0	0	4	0.0003125	0.0003125	1.937E-05	1.5E-05
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0		0	0	3	0.00023475	0.0002344	1.453E-05	1.5E-05
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0		0	0	1710	0.216322482	0.2363286	0.01465238	0.01465
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0		0	0	50	0.00390625	0.0039064	0.0002432	0.00024
33	0.196047009	0.00323397	42	0.649178117	0.01116821	48	0.501098097	0.01753343		0	0		0	0	1	0.083333		0	0	0	0	0	0	0.09532
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0		0	0	126	0.00984375	0.0098441	0.00061033	0.00061
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0		0	0	79	0.006171875	0.0061721	0.00038267	0.00038
2	0.067307692	0.00232692	4	0.00081208846	2.1752E-06	44	0.485187097	0.01700605		0	0		0	0		0	0		0	0	6	0.00046875	0.0004688	2.906E-05	4.1E-05
5	0.081730769	0.00343269	44	0.6645135662	0.01159325	119	0.527086384	0.01844802		0	0		0	0		0	0		0	0	24	0.001875	0.0018751	0.00011625	0.00012
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0		0	0	9	0.000703125	0.0007031	4.359E-05	0.02425
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0		0	0	0	0	0	0	0.062
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0		0	0	1750	0.2174801459	0.2474078	0.01533928	0.01534
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0		0	0	24	0.001875	0.0018751	0.00011625	0.13918
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0		0	0	104	0.008125	0.0081253	0.00050377	0.17044
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0		0	0	23	0.001796975	0.0017969	0.00011141	0.00011
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0		0	0	50	0.00390625	0.0039064	0.0002422	0.00024
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0		0	0	83	0.006484375	0.0064846	0.00040204	0.0004
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0		0	0	10	0.00078125	0.0007813	4.84395E-05	4.8E-05
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0		0	0	27	0.002109375	0.0021094	0.00013079	0.00013
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0		0	0	47	0.003671875	0.003672	0.00022766	0.00023
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0		0	0	1000	0.095382324	0.0953853	0.00591389	0.00591
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0		0	0	200	0.0155625	0.0155255	0.000966978	0.00422
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0		0	0	21	0.001640625	0.0016407	0.00010172	0.0209
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0		0	0	20	0.0015625	0.0015626	9.687BE-05	0.03456
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0		0	0	6	0.00046875	0.0004688	2.906E-05	2.9E-05
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0		0	0	412	0.032211058	0.0322121	0.00199715	0.002
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0		0	0	1128	0.1143892	0.1143892	0.00709213	0.00709
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0		0	0	10	0.00078125	0.0007813	4.84395E-05	0.00417
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0		0	0	94	0.00734375	0.007344	0.00045533	0.05941
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0		0	0	12	0.0009375	0.0009375	5.8127E-05	6.6E-05
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0		0	0	320	0.025	0.0250008	0.00155005	0.00155
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0		0	0	108	0.0084375	0.0084378	0.00052314	0.00052
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0		0	0	440	0.034496007	0.0344971	0.00213882	0.02635
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0		0	0	140	0.0109375	0.0109379	0.00067815	0.00068
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0		0	0	15	0.001171875	0.0011719	7.2659E-05	0.00015
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0		0	0	7	0.000546875	0.0005469	3.339E7E-05	0.09547
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0		0	0	120	0.009375	0.0093753	0.00058127	0.00058
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0		0	0	12	0.0009375	0.0009375	5.8127E-05	0.00025
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0		0	0	92	0.0071875	0.0071877	0.00044564	0.0007
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0	0	0	0	0	0.062
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0	0	0	0	0	0.062
0	0.0625	0.002625	0	0	0	30	0.288306452	0.01009073		0	0		0	0		0	0	1	0.062	0.018125	232	0.018125	0.0181256	0.00112379	0.00112
1	0.166667	0.0195	18	0.014625	0	1	0.083333	0.00325	1	0.083333	0.00325	1	0.062	0	0	0	0	0.38148
2	0.25	0.0055	25	0.019532	0.00015625	2	0.166667	0.0065	1	0.083333	0.00325	2	0.062	0	0	0	0	0.46809
3						3	0.25		3	0.25			0	0	0	0	0	0	8.1E-10
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0		0	0	0	0	0	0	0.00051
51	0.263354701	0.0110659	60	0.759084419	0.01366352	246	0.573572474	0.02007504	5	1	0.039	3	0.25	0.00975	3	0.25	0.00975	40	0.003125	0.0031251	0.000119376	0.00305
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0		0	0	0	0	0	0	0.062
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0		0	0	55	0.004296875	0.0042967	0.00026642	0.00027
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0		0	0	10400	0.0015625	1	0.062	0.23024
15	0.128739316	0.00540705	45	0.6710461295	0.0120683	28	0.260080645	0.00910282	5	1	0.039	3	0.25	0.00975	1	0.083333	0.00325	20	0.0015625	9.6878E-05	9.7E-05	0.10986
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0		0	0	0	0.000625	0.000625	3.875E-05	0.03704
0	0	0	0	0	0	0	0	0	0.083333		1	0.083333		0	0		0	0	8	0.000625	0.000625	3.875E-05	0.00113
0	0	0	0	0	0	0	0	0	4	0.5	0.0195	3	0.25	0.00975	1	0.062	15	0.001171875	0.0011719	7.2659E-05	7.3E-05
0	0	0	0	0	0	0	0	0	5	1	0.039	3	0.25	0.00975	3	0.25	0.00975	0	0	0	0	3.5E-10
0	0	0	0	0	0	0	0	0		1			0.25		3	0.062	0	0	0	0	2.5E-09
14	0.125	0.00525	15	0.2399777209	0.006539599	30	0.288306452	0.01009073	1	0.083333		3	0.25	0.00975	1	0.083333	0.00325	115	0.008984375	0.0089847	0.000055705	0.25517
																					0	0	0	0	0

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EVENTI	DAMCOST	Score	Utility	Score	INJCOST	Score	Utility	Score	TOTFTL	Score	Score	Score	TOTAL DISABILITY	Score	Score	PARTIAL DISABILITY	Score	Score	Score
51	92290	6.837E2E-06	4.44899E-06	1.05E-06	0	0	0	0	0	0	0			0	0		0	0	0
51	29303	2.04897E-08	1.33318E-08	3.14363E-09	0	0	0	0	0	0	0.187			0	0		0	0	0
51	948588	0.442785928	0.346193883	0.08170176	0	0	0	0	0	0	0			0	0		0	0	0
51	10035285	0.677309618	0.586165601	0.13833508	3360	5.78612E-06	1.3504E-06	6.3467E-08	2	0.53125	0.187			0	0		0	0	0
51	975373	0.471316283	0.373622911	0.08803341	2200000	0.808165972	0.5907462	0.02776307	0	0	0			0	0		0	0	0
51	11192	2.70265E-09	1.75851E-09	4.150E-10	720	1.17488E-06	2.7419E-07	1.287E-08	0	0	0			0	0		0	0	0
51	5763771	0.593349377	0.494095982	0.11679545	52537	0.000291059	6.7951E-05	3.193E-06	0	0	0			0	0		0	0	0
51	22675	1.05102E-08	6.83665E-09	1.6139E-09	0	0	0	0	0	0	0			0	0		0	0	0
51	159398	0.063092824	0.095982866	0.00847551	2200000	0.808165972	0.5907462	0.02776307	2	0.53125	0.187			0	0		0	0	0
51	295004	0.138150516	0.095982866	0.02243956	0	0	0	0	0	0	0			0	0		0	0	0
51	640072	0.231416866	0.165536475	0.03906415	0	0	0	0	0	0	0			0	0		0	0	0
51	49096	1.131E-07	8.59521E-08	2.028E-08	0	0	0	0	0	0	0			0	0		0	0	0
51	113438	4.69656E-05	3.05593E-05	7.213E-06	1112648	0.750213996	0.50032588	0.02351532	1	0.5	0.176			0	0		0	0	0
51	191822	0.089336232	0.039545538	0.00933275	0	0	0	0	0	0	0			0	0		0	0	0
51	434736	0.165339817	0.115075051	0.02715771	0	0	0	0	0	0	0			0	0		0	0	0
51	353477	0.148219853	0.102435794	0.02417485	1518	2.51745E-06	5.8735E-07	2.761E-08	0	0	0			0	0		0	0	0
51	203293	0.125598359	0.086585607	0.02026303	0	0	0	0	0	0	0			0	0		0	0	0
51	102154	1.67983E-05	1.09301E-05	2.5795E-06	0	0	0	0	0	0	0			0	0		0	0	0
51	121432	9.7296E-05	6.3309E-05	1.4941E-05	0	0	0	0	0	0	0			0	0		0	0	0
51	171669	0.069460166	0.06617878	0.00145821	2740000	0.836041076	0.6406251	0.03010938	4	0.59375	0.209			0	0		0	0	0
51	10098317	0.678346566	0.587555333	0.13866306	0	0	0	0	0	0	0			0	0		0	0	0
51	137693	0.000428078	0.000278581	6.5745E-05	0	0	0	0	0	0	0			0	0		0	0	0
51	8497802	0.647137785	0.552659772	0.13043549	1100000	0.749550019	0.49934744	0.02346933	2	0.53125	0.187			0	0		0	0	0
51	851000	0.354889545	0.267311811	0.06308859	0	0	0	0	0	0	0			0	0		0	0	0
51	19633	7.59698E-09	4.94306E-09	1.1666E-09	0	0	0	0	0	0	0			0	0		0	0	0
51	2016773	0.51999646	0.420248195	0.09991787	0	0	0	0	0	0	0			0	0		0	0	0
51	38059	4.727055E-08	3.075115E-08	7.2587E-09	0	0	0	0	0	0	0			0	0		0	0	0
51	568694	0.210720364	0.144852101	0.035996.3	0	0	0	0	0	0	0			0	0		0	0	0
51	5983699	0.558853501	0.458989968	0.10863214	211515	0.125431979	0.03424119	0.00160934	8	0	0			0	0		0	0.25	0.0035
51	6456970	0.611013121	0.513671483	0.12112647	174984	0.045652829	0.01126977	0.00052968	8	0	0			0	0		0	0	0
51	10000	2.26758E-09	1.475425E-09	3.482E-10	0	0	0	0	0	0	0			0	0		0	0	0
52	10683000	0.690020462	0.600612566	0.14172097	2965	5.06465E-06	1.182E-06	5.5553E-08	0	0	0			0	0		0	0	0
54	60400	3.72373E-07	2.42521E-07	5.7235E-08	0	0	0	0	0	0	0			0	0		0	0	0
54	42690	7.30189E-08	4.75105E-08	1.1212E-08	0	0	0	0	0	0	0			0	0		0	0	0
54	64623	5.48835E-07	3.56795E-07	8.4202E-08	0	0	0	0	0	0	0			0	0		0	0	0
54	67023	6.82746E-07	4.44216E-07	1.0484E-07	0	0	0	0	0	0	0			0	0		0	0	0
54	1100000	0.591962413	0.492536735	0.09149967	0	0	0	0	0	0	0			0	0		0	0	0
54	23104	1.099E-08	7.15073E-09	1.687E-09	0	0	0	0	0	0	0			0	0		0	0	0
54	14701	4.29524E-09	2.7947E-09	6.5956E-10	0	0	0	0	0	0	0			0	0		0	0	0
54	16818	5.53339E-09	3.60036E-09	8.4968E-10	0	0	0	0	0	0	0			0	0		0	0	0
54	25527	1.36883E-08	8.90645E-09	2.1019E-09	0	0	0	0	0	0	0			0	0		0	0	0
54	36907	3.90237E-08	2.53912E-08	5.9923E-09	0	0	0	0	0	0	0			0	0		0	0	0
54	37453	4.47366E-08	2.91064E-08	6.8691E-09	0	0	0	0	0	0	0			0	0		0	0	0
54	17512	5.9941E-09	3.90012E-09	9.2043E-10	0	0	0	0	0	0	0			0	0		0	0	0
54	33840	3.17508E-08	2.06642E-08	4.8768E-09	0	0	0	0	0	0	0			0	0		0	0	0
54	44657	2.74445E-09	1.78571E-09	4.2143E-10	0	0	0	0	0	0	0			0	0		0	0	0
54	17309	8.76499E-08	5.70384E-08	1.3459E-08	0	0	0	0	0	0	0			0	0		0	0	0
54	19606	7.57457E-09	4.92847E-09	1.1631E-09	0	0	0	0	0	0	0			0	0		0	0	0
54	17064	5.69337E-09	3.70445E-09	8.7425E-10	0	0	0	0	0	0	0			0	0		0	0	0
54	16157	5.12086E-09	3.33194E-09	7.8634E-10	0	0	0	0	0	0	0			0	0		0	0	0
54	10000	2.26758E-09	1.475425-09	3.482E-10	0	0	0	0	0	0	0			0	0		0	0	0
55	190817	0.054144427	0.036609409	0.00849822	0	0	0	0	0	0	0			0	0		0	0	0
55	407568	0.159166253	0.110497145	0.02607733	0	0	0	0	0	0	0			0	0		0	0	0
55	56115	2.517642E-07	1.63813E-07	3.866E-08	0	0	0	0	0	0	0			0	0		0	0	0
55	92290	6.83762E-06	4.44899E-06	1.05E-06	0	0	0	0	0	0	0			0	0		0	0	0
55	84192	3.26871E-06	2.12682E-06	5.0193E-07	0	0	0	0	0	0	0			0	0		0	0	0
55	1500000	0.599811066	0.410213456	0.09681059	5040	8.98612E-06	2.0972E-06	9.856E-08	0	0	0			0	0		0	0	0
55	1200000	0.503934826	0.40445159	0.09545958	0	0	0	0	0	0	0			0	0		0	0	0
55	92280	6.83762E-06	4.44899E-06	1.05E-06	0	0	0	0	0	0	0			0	0		0	0	0
55	92790	7.15638E-06	4.65639E-06	1.0989E-06	9.7669E-07	2.2794E-07	1.0713E-08	0	0	0	0			0	0		0	0	0
55	92290	6.83762E-06	4.44899E-06	1.05E-06	600	9.76699E-07	2.2794E-07	1.0713E-08	0	0	0			0	0		0	0	0
55	92735	7.12061E-06	4.63311E-06	1.0934E-06	0	0	0	0	0	0	0			0	0		0	0	0
55	250820	0.131587647	0.090322477	0.02131161	0	0	0	0	0	0	0			0	0		0	0	0
55	607309	0.218096721	0.155140482	0.03661315	0	0	0	0	0	0	0			0	0		0	0	0
57	1532658	0.51045295	0.410843342	0.09695903	4930	8.76991E-06	2.0467E-06	9.6196E-08	0	0	0			0	0		0	0	0
57	28476	1.88919E-08	1.22922E-08	2.901E-09	0	0	0	0	0	0	0			0	0		0	0	0
57	22037	9.83061E-09	6.39639E-09	1.5095E-09	0	0	0	0	0	0	0			0	0		0	0	0
57	13742	3.80829E-09	2.47791E-09	5.8479E-10	0	0	0	0	0	0	0			0	0		0	0	0
57	41327	6.43116E-08	4.18463E-08	9.8757E-09	0	0	0	0	0	0	0			0	0		0	0	0
57	19077	7.1464E-09	4.64988E-09	1.0974E-09	0	0	0	0	0	0	0			0	0		0	0	0
58	28064	1.813797E-08	1.18028E-08	2.7855E-09	0	0	0	0	0	0	0			0	0		0	0	0
58	48295	1.22695E-07	7.9833E-08	1.8841E-08	0	0	0	0	0	0	0			0	0		0	0	0
58	91291	6.24262E-06	4.06184E-06	9.5859E-07	0	0	0	0	0	0	0			0	0		0	0	0
58	53271	1.93947E-07	1.26194E-07	2.9782E-08	0	0	0	0	0	0	0			0	0		0	0	0
58	20134	8.023E-09	5.22025E-09	1.232E-09	0	0	0	0	0	0	0			0	0		0	0	0
58	43670	7.99809E-08	5.20404E-08	1.2282E-08	0	0	0	0	0	0	0			0	0		0	0	0
58	25013	1.33674E-08	8.69764E-09	2.0526E-09	0	0	0	0	0	0	0			0	0		0	0	0
58	23958	1.20026E-08	7.80961E-09	1.8431E-09	0	0	0	0	0	0	0			0	0		0	0	0

EVENTI	DAMCOST	Score	Utility	Score	INJCOST	Score	Utility	Score	TOTFTL	Score	Score	TOTAL DISABILITY				PARTIAL DISABILITY			
												Score	Score	Score	Score	Score	Score	Score	Score
58	97718	1.1213E-05	7.2958GE-06	1.7218E-06	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
58	27243	1.67224E-08	1.08806E-08	2.5678E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
58	54250	2.12184E-07	1.38106E-07	3.25582E-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
58	17694	6.11981E-09	3.98192E-09	9.3973E-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
58	603109	0.216480236	0.153685904	0.03631707	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
58	472177	0.17467G723	0.122042091	0.02880193	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
58	116115	5.59387E-05	3.90007E-05	9.2042E-06	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
58	121744	0.000100102	6.51349E-05	1.5372E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
58	53592	2.35617E-07	1.53107E-07	3.61E-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
58	49985	1.43373E-07	9.31873E-08	2.2016E-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
58	34160	3.27435E-08	2.13049E-08	5.0208E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
58	10000	2.2675BE-09	1.47542E-09	3.482E-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
58	10000	2.2675BE-09	1.47542E-09	3.482E-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
58	85000	3.51852E-06	2.28937E-06	5.4039E-07	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
58	10000	2.2675BE-09	1.47542E-09	3.482E-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
58	46949	1.08859E-07	7.05048E-08	1.6639E-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
58	99732	9.81561E-07	6.3866E-07	1.5072E-07	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
58	71000	9.81561E-07	8.76353E-06	2.0687E-06	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
58	185441	0.03317678	0.021877942	0.00516319	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
58	135417	0.000347908	0.000226402	5.3431E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
58	53394	1.96165E-07	1.27627E-07	3.012E-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
58	43561	7.91755E-08	5.15164E-08	1.2158E-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
58	163090	0.00432954	0.002821981	0.00066599	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
58	53320	1.94822E-07	1.26763E-07	2.991E-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
58	22399	1.01114E-08	6.6441E-09	1.568E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
58	62376	4.46554E-07	2.90855E-07	6.8571E-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
58	107820	2.81498E-05	1.83163E-05	4.3218E-06	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
58	50575	1.51575E-07	9.84939E-08	2.3245E-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
58	59942	3.57434E-07	2.32568E-07	5.4846E-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
58	200000	0.125	0.085569363	0.02019437	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
58	69751	8.75821E-07	5.69862E-07	1.3449E-07	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
58	10000	2.2675BE-09	1.47542E-09	3.482E-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
58	175992	0.014026612	0.009178314	0.00216609	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
58	10000	2.2675BE-09	1.47542E-09	3.482E-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
58	200000	0.125	0.085569363	0.02019437	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
60	52680	1.8373E-07	1.19526E-07	2.8208E-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
60	185889	0.034585977	0.022802162	0.00538131	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
60	157072	0.002502184	0.001629715	0.00038461	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
60	673718	0.246462232	0.177394373	0.04186505	11080	2.24548E-05	5.2406E-06	2.4631E-07	0	0	0	0	0	0	0	0	0	0	0
60	122829	0.000110503	7.19032E-05	1.6969E-05	1692	2.79874E-06	6.5317E-07	1.0699E-08	0	0	0	0	0	0	0	0	0	0	0
60	19148	6.44266E-09	4.19199E-09	9.8931E-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
60	256393	0.132370284	0.090088843	0.02144977	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
60	35208	3.61768E-08	2.35388E-08	5.5552E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
60	92290	6.83762E-06	4.48099E-06	1.05E-06	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
60	184452	0.03031804	0.019960678	0.00471284	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
60	119026	3.41165E-05	2.23935E-05	5.2849E-06	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
60	10090000	0.67661718	0.58538247	0.13815163	2855000	0.843069108	0.6517069	0.03063022	4	0.593375	0.209	0	0	0	0	0.00035	0	0.25	0.00035
60	70379	9.27484E-07	6.03477E-07	1.4242E-07	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
60	256071	0.137759514	0.091895959	0.02168723	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
60	14490	4.18442E-09	2.72264E-09	6.425E-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
60	124782	0.000132024	8.59073E-05	2.027E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
60	103178	1.84411E-05	1.1999E-05	2.8318E-06	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
60	259476	0.133808651	0.09121623	0.02152467	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
60	141956	0.000631252	0.000410836	9.695E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
60	45214	9.29922E-08	6.005699E-08	1.4172E-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
60	92290	6.83762E-06	4.4809E-06	1.05E-06	11662	2.39346E-05	5.5858E-06	2.6123E-07	0	0	0	0	0	0	0	0	0	0	0
60	13597	3.7183E-09	2.4323TE-09	5.7404E-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
60	10000	2.2675BE-09	1.47542E-09	3.482E-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
60	159725	0.003186355	0.0020759	0.00048991	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
60	158454	0.002837937	0.001848647	0.00043628	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
60	39113	5.22866E-08	3.40209E-08	8.029E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
60	34564	3.40283E-08	2.21409E-08	5.2153E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
60	81644	2.5912E-06	1.686E-06	3.979E-07	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
60	655500	0.238135611	0.170860454	0.0403108	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
60	62465	4.50202E-07	2.929295E-07	6.9131E-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
60	23448	1.13884E-08	7.48099E-09	1.7488E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
60	10000	2.2675BE-09	1.47542E-09	3.482E-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
60	10000	2.2675BE-09	1.47542E-09	3.482E-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
60	200000	0.125	0.085569363	0.02019437	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
60	187436	0.039786926	0.026309225	0.00620898	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
60	23384	1.13133E-08	7.36114E-09	1.7372E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
60	168724	0.007233857	0.004720531	0.00111405	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
60	158798	0.002928291	0.001907574	0.00045019	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
60	177081	0.01548969	0.010141689	0.00239344	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
60	122584	0.000108064	7.03159E-05	1.6595E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
60	100759	1.47932E-05	9.6254E-06	2.2716E-06	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
60	200000	0.125	0.085569363	0.02019437	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
60	200000	0.125	0.085569363	0.02019437	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
61	998503	0.498211931	0.398885556	0.09413699	12270	2.51617E-05	5.9552E-06	2.7989E-07	0	0	0	0	0	0	0	0	0	0	0
61	98718	1.22827E-05	7.99198E-06	1.8861E-06	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
61	468945	0.173830576	0.121408548	0.02865242	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

MHRS	Utility	Score	Score
125	0.0103128	0.0103125	0.0606394	0.00604
119	0.000625	0.000625	3.875E-05	3.9E-05
185	0.0195319	0.0195319	0.00121098	0.00121
132	0	0	0	9.4E-10
8	0.0014408	0.0014408	0.0025673	0.03657
250	0.0007813	0.00078125	4.8439E-05	0.02385
0	0	0	0	9.2E-06
53	0	0	0	1.3E-05
10	0.0156255	0.015625	0.00096878	0.00097
0	0	0	0	2.2E-08
0	0.0009375	0.0009375	5.8127E-05	5.8E-05
200	0.0117191	0.01171875	0.00072659	0.0073
0	0	0	0	3.5E-10
12	0.7587392	0.758713975	0.04704183	0.04704
150	0.0109379	0.0109375	0.00067815	0.00058
0	0.0039064	0.00390625	0.0002422	0.00024
2962	0	0	0	2.1E-06
140	0.0078128	0.0078125	0.00048439	0.00048
50	0.0015626	0.0015625	9.6878E-05	0.00326
0	0.0014844	0.001484375	9.2034E-05	0.00015
100	0.0056252	0.005625	0.00034876	0.00035
20	0.0007813	0.00078125	4.8439E-05	4.8E-05
19	0.0045314	0.00453125	0.00028095	0.00095
72	0.0025001	0.0025	0.00015501	0.00016
10	0	0	0	1.6E-09
58	0.0111723	0.01117875	0.00069268	0.00069
32	0	0	0	4.3E-06
0	0.0048439	0.00484375	0.00030032	0.0003
143	0.0062502	0.00625	0.00038751	0.00039
0	0	0	0	0.02019
62	0	0	0	1.3E-07
80	0	0	0	3.5E-10
0	0.0093753	0.009375	0.00058127	0.00275
0	0.0039064	0.00390625	0.0002422	0.00024
0	0.0487697	0.048768153	0.00302372	0.02322
0	0.0297666	0.029765625	0.00184553	0.00185
120	0.0161724	0.016171875	0.00100269	0.001
50	0.0007031	0.000703125	4.3595E-05	0.00542
600	0	0	0	0.00038
381	0.3269076	0.32695012	0.02026827	0.10375
34	0	0	0	0.00284
207	0	0	0	9.9E-10
9	0.0016407	0.001640625	0.00010172	0.02155
0	0.0265634	0.0265625	0.00164693	0.06365
2000	0.0070315	0.00703125	0.00043595	0.00369
0	0.0234383	0.0234375	0.00145317	0.00517
0	0.0025001	0.0025	0.00015501	0.06216
21	0.0007813	0.00078125	4.8439E-05	0.38133
340	0.0031251	0.003125	0.00019376	0.00019
90	0.0326150	0.0326147	0.00202218	0.02371
300	0	0	0	6.4E-10
32	0.0011719	0.001171875	7.2659E-05	9.3E-05
10	0	0	0	2.8E-06
40	0.062267	0.062265026	0.00386056	0.02539
417	0	0	0	9.7E-05
15	0.0027345	0.002734375	0.00016954	0.06217
0	0.004297	0.004290875	0.00026642	0.02842
732	0.0059377	0.0059375	0.00036814	0.00037
0	0.0396003	0.039598963	0.00245522	0.00246
35	0.052685	0.052682286	0.00326647	0.00376
55	0.0003125	0.0003125	1.9376E-05	0.00046
76	0	0	0	8E-09
500	0	0	0	5.2E-09
640	0.0187506	0.01875	0.00116254	4E-07
4	0	0	0	0.04147
0	0.058984	0.058838154	0.00364808	6.9E-08
0	0.0084378	0.0084375	0.00052314	1.7E-09
240	0.0002344	0.000234375	1.4532E-05	0.00365
0	0.0078128	0.00078125	0.00048439	0.00052
700	0	0	0	0.02021
108	0.0078128	0.0078125	0.00048439	0.00669
3	0.012266	0.012266	0.00076049	1.7E-09
100	0.0014063	0.00140625	8.719E-05	0.00111
0	0.0187506	0.01875	0.00116254	0.00093
100	0	0	0	0.00239
				0.00078
				8.9E-05
				0.02136
				0.02019
				0
157	0.0165631	0.0165625	0.00102691	0.17364
18	0.0054689	0.0054689	0.00033907	0.00034
240	0.0156255	0.015625	0.00096878	0.03937

EVENT1	DAMCOST	Score	Utility	Score	INJCOST	Score	Utility	Score	TOTFTL	Score	Score	TOTAL DISABILITY	Score	Score	PARTIAL DISABILITY	Score	Score
61	192735	0.064483095	0.043065687	0.0101635	0	0	0	0	0	0	0	0	0	0	0	0	0
			0	0			0	0									
63	21000	8.80686E-09	5.73028E-09	1.3523E-09	0	0	0	0	0	0	0	0	0	0	0	0	0
63	263089	0.133327341	0.091581916	0.02161333	0	0	0	0	0	0	0	0	0	0	0	0	0
63	31409	2.51462E-08	1.63616E-08	3.8613E-09	0	0	0	0	0	0	0	0	0	0	0	0	0
			0	0			0	0									
64	72575	1.13326E-06	7.37365E-07	1.7402E-07	0	0	0	0	0	0	0	0	0	0	0	0	0
64	924766	0.419006307	0.324298828	0.07653452	531120	0.155178917	0.04401634	0.00206877	0	0	0	1	0.75	0.0105	1	0.25	0.0035
64	67507	7.13596E-07	4.64309E-07	1.0958E-07	0	0	0	0	0	0	0	0	0	0	0	0	0
64	44518	8.65277E-08	5.63002E-08	1.3287E-08	0	0	0	0	0	0	0	0	0	0	0	0	0
64	18841	6.96194E-09	4.52986E-09	1.069E-09	0	0	0	0	0	0	0	0	0	0	0	0	0
64	61536	4.13541E-07	2.69075E-07	6.3502E-08	0	0	0	0	0	0	0	0	0	0	0	0	0
64	2857048	0.536442954	0.43662641	0.10304383	0	0	0	0	0	0	0	0	0	0	0	0	0
64	32823	2.88133E-08	1.87477E-08	4.4245E-09	0	0	0	0	0	0	0	0	0	0	0	0	0
64	78858	2.00997E-06	1.30781E-06	3.0864E-07	0	0	0	0	0	0	0	0	0	0	0	0	0
64	98037	1.15437E-05	7.51105E-06	1.7726E-06	0	0	0	0	0	0	0	0	0	0	0	0	0
64	51124	1.59218E-07	1.03597E-07	2.4449E-08	0	0	0	0	0	0	0	0	0	0	0	0	0
64	15381	4.66723E-09	3.03678E-09	7.1668E-10	0	0	0	0	0	0	0	0	0	0	0	0	0
64	10000	2.26758E-09	1.47542E-09	3.482E-10	0	0	0	0	0	0	0	0	0	0	0	0	0
64	140118	0.00053392	0.000347476	8.2004E-05	0	0	0	0	0	0	0	0	0	0	0	0	0
64	42555	7.21076E-08	4.69176E-08	1.1073E-08	0	0	0	0	0	0	0	0	0	0	0	0	0
64	59266	3.35993E-07	2.18617E-07	5.1594E-08	0	0	0	0	0	0	0	0	0	0	0	0	0
64	52728	1.84512E-07	1.20055E-07	2.8333E-08	0	0	0	0	0	0	0	0	0	0	0	0	0
64	67566	7.1745E-07	4.66817E-07	1.1017E-07	0	0	0	0	0	0	0	0	0	0	0	0	0
64	49034	1.31347E-07	8.54623E-08	2.0169E-08	0	0	0	0	0	0	0	0	0	0	0	0	0
64	27956	1.79471E-08	1.16775E-08	2.7559E-09	22440	5.86309E-05	1.3684E-05	6.4315E-07	0	0	0	0	0	0	0	0	0
64	136551	0.000385776	0.000251048	5.9247E-05	0	0	0	0	0	0	0	0	0	0	0	0	0
64	10680000	0.68996159	0.600445777	0.1417052	38190	0.000145866	3.4048E-05	1.6003E-06	0	0	0	0	0	0	0	0	0
64	38847	5.09982E-08	3.31825E-08	7.8311E-09	0	0	0	0	0	0	0	0	0	0	0	0	0
64	11631	2.87516E-09	1.87076E-09	4.415E-10	0	0	0	0	0	0	0	0	0	0	0	0	0
64	54257	2.1232E-07	1.38148E-07	3.2603E-08	0	0	0	0	0	0	0	0	0	0	0	0	0
64	11126	2.6773E-09	1.74201E-09	4.1112E-10	0	0	0	0	0	0	0	0	0	0	0	0	0
64	13061	3.48745E-09	2.26915E-09	5.3552E-10	0	0	0	0	0	0	0	0	0	0	0	0	0
64	374451	0.152263854	0.105405674	0.02487574	17410	4.05637E-05	9.4671E-06	4.4495E-07	0	0	0	0	0	0	0	0	0
64	35233	3.62628E-08	2.35948E-08	5.5684E-09	0	0	0	0	0	0	0	0	0	0	0	0	0
64	1934172	0.518332314	0.418603017	0.09879031	420000	0.139405908	0.03874497	0.00182101	0	0	0	0	0	0	2	0.4375	0.006125
64	948158	0.442342122	0.345781395	0.08160441	120	1.93458E-07	4.5149E-08	2.122E-09	0	0	0	0	0	0	0	0	0
64	24830	1.31212E-08	8.53742E-09	2.0148E-09	0	0	0	0	0	0	0	0	0	0	0	0	0
64	17988	6.32735E-09	4.11696E-09	9.716E-10	0	0	0	0	0	0	0	0	0	0	0	0	0
64	27431	1.70377E-08	1.10857E-08	2.6162E-09	0	0	0	0	0	0	0	0	0	0	0	0	0
64	43304	7.73078E-08	5.03012E-08	1.1871E-08	0	0	0	0	0	0	0	0	0	0	0	0	0
64	14044	3.95707E-09	2.57471E-09	6.0763E-10	0	0	0	0	0	0	0	0	0	0	0	0	0
64	100943	1.50433E-05	9.78814E-06	2.31E-06	891	1.45896E-06	3.4049E-07	1.6003E-08	0	0	0	0	0	0	0	0	0
64	165067	0.00518404	0.003380106	0.00079771	0	0	0	0	0	0	0	0	0	0	0	0	0
64	16919	5.59864E-09	3.64282E-09	8.597E-10	0	0	0	0	0	0	0	0	0	0	0	0	0
64	10000	2.26758E-09	1.47542E-09	3.482E-10	0	0	0	0	0	0	0	0	0	0	0	0	0
64	320611	0.14235297	0.098144371	0.02316207	3600	6.23012E-06	1.454E-06	6.8337E-08	0	0	0	0	0	0	0	0	0
64	326426	0.143351107	0.098873043	0.02333404	0	0	0	0	0	0	0	0	0	0	0	0	0
64	454266	0.170084854	0.118609167	0.02799176	19341	4.70708E-05	1.0986E-05	5.1634E-07	0	0	0	0	0	0	0	0	0
64	53410	1.96438E-07	1.27815E-07	3.0164E-08	0	0	0	0	0	0	0	0	0	0	0	0	0
64	64239	5.29445E-07	3.44489E-07	8.1299E-08	0	0	0	0	0	0	0	0	0	0	0	0	0
64	57021	2.73559E-07	1.77994E-07	4.2007E-08	0	0	0	0	0	0	0	0	0	0	0	0	0
64	14086	3.97809E-09	2.58839E-09	6.1086E-10	0	0	0	0	0	0	0	0	0	0	0	0	0
64	14086	3.97809E-09	2.58839E-09	6.1086E-10	0	0	0	0	0	0	0	0	0	0	0	0	0
64	14086	3.97809E-09	2.58839E-09	6.1086E-10	0	0	0	0	0	0	0	0	0	0	0	0	0
64	1181928	0.503570179	0.404105314	0.09536885	0	0	0	0	0	0	0	0	0	0	0	0	0
64	47515	1.14174E-07	7.42885E-08	1.7532E-08	0	0	0	0	0	0	0	0	0	0	0	0	0
64	45381	9.37306E-08	6.09868E-08	1.4393E-08	0	0	0	0	0	0	0	0	0	0	0	0	0
64	14594	4.23878E-09	2.75801E-09	6.5089E-10	0	0	0	0	0	0	0	0	0	0	0	0	0
64	14594	4.23878E-09	2.75801E-09	6.5089E-10	0	0	0	0	0	0	0	0	0	0	0	0	0
64	39746	5.54813E-08	3.60995E-08	8.5195E-09	0	0	0	0	0	0	0	0	0	0	0	0	0
64	30192	2.2347E-08	1.45403E-08	3.4315E-09	0	0	0	0	0	0	0	0	0	0	0	0	0
64	10000	2.26758E-09	1.47542E-09	3.482E-10	0	0	0	0	0	0	0	0	0	0	0	0	0
64	922704	0.417023435	0.322491979	0.07610811	28005	8.33788E-05	1.9461E-05	9.1465E-07	0	0	0	0	0	0	0	0	0
64	68357	7.71178E-07	5.01775E-07	1.1842E-07	0	0	0	0	0	0	0	0	0	0	0	0	0
64	72762	1.15275E-06	7.50053E-07	1.7701E-07	0	0	0	0	0	0	0	0	0	0	0	0	0
64	18086	6.39778E-09	4.16278E-09	9.8242E-10	0	0	0	0	0	0	0	0	0	0	0	0	0
64	14500	4.18963E-09	2.72602E-09	6.4334E-10	0	0	0	0	0	0	0	0	0	0	0	0	0
64	1000000	0.5	0.400624906	0.09454748	20825	5.24269E-05	1.2236E-05	5.7509E-07	2	0.53125	0.187	0	0	0	0	0	0
			0	0			0	0									
66	13354	3.62306E-09	2.35738E-09	5.5634E-10	0	0	0	0	0	0	0	0	0	0	0	0	0
66	11424	2.79296E-09	1.81727E-09	4.2888E-10	0	0	0	0	0	0	0	0	0	0	0	0	0
66	22713	1.0552E-08	6.86576E-09	1.6203E-09	0	0	0	0	0	0	0	0	0	0	0	0	0
66	11154	2.68803E-09	1.749E-09	4.1276E-10	0	0	0	0	0	0	0	0	0	0	0	0	0
66	13093	3.50209E-09	2.27867E-09	5.3777E-10	0	0	0	0	0	0	0	0	0	0	0	0	0
			0	0			0	0									
68	67171	6.92036E-07	4.50281E-07	1.0627E-07	0	0	0	0	0	0	0	0	0	0	0	0	0
68	20662	8.49354E-09	5.52641E-09	1.3042E-09	0	0	0	0	0	0	0	0	0	0	0	0	0
			0	0			0	0									
69	73474	1.23011E-06	8.00388E-07	1.8889E-07	0	0	0	0	0	0	0	0	0	0	0	0	0
			0	0			0	0									
70	5694993	0.592135158	0.493727234	0.11651963	2460040	0.822022783	0.61432918	0.02887347	10	0.78125	0.275	2	1	0.014	5	1	0.014
70	189679	0.048811816	0.032392745	0.00764469	373000	0.134917985	0.03728176	0.00175224	1	0.5	0.176	0	0	0	1	0.25	0.0035
70	370000	0.151385184	0.104759563	0.02472326	0	0	0	0	0	0	0	0	0	0	0	0	0

EVENT1	DAMCOST	Score	Utility	Score	INJCOST	Score	Utility	Score	TOTFTL	Score	TOTAL DISABILITY	Score	Score	PARTIAL DISABILITY	Score	Score	Score
70	378450	0.151473509	0.104823449	0.02473858	0	0	0	0	0	0	0	0	0	0	0	0	0
70	67795	7.526099E-07	4.766680E-07	1.125E-07	0	0	0	0	0	0	0	0	0	0	0	0	0
70	925919	0.420012019	0.325315995	0.07677436	14650	3.20984E-05	7.4931E-06	3.5209E-07	0	0	0	0	0	0	0	0	0
70	74351	1.333257E-06	8.670498E-07	2.0462E-07	0	0	0	0	0	0	0	0	0	0	0	0	0
70	80630	2.362411E-06	1.537135E-06	3.6276E-07	0	0	0	0	0	0	0	0	0	0	0	0	0
70	81828	2.615815E-06	1.714532E-06	4.0463E-07	0	0	0	0	0	0	0	0	0	0	0	0	0
70	40124	5.747880E-08	3.739935E-08	8.8262E-09	0	0	0	0	0	0	0	0	0	0	0	0	0
70	84160	3.259188E-06	2.120624E-06	5.0047E-07	0	0	0	0	0	0	0	0	0	0	0	0	0
70	74697	1.375292E-06	8.948488E-07	2.1118E-07	0	0	0	0	0	0	0	0	0	0	0	0	0
70	80647	2.366697E-06	1.539511E-06	3.6333E-07	0	0	0	0	0	0	0	0	0	0	0	0	0
70	179690	0.019546311	0.012884664	0.00304078	0	0	0	0	0	0	0	0	0	0	0	0	0
70	64601	5.473495E-07	3.560743E-07	8.4033E-08	0	0	0	0	0	0	0	0	0	0	0	0	0
70	67500	7.001235E-07	4.556162E-07	1.0753E-07	0	0	0	0	0	0	0	0	0	0	0	0	0
70	54284	2.128437E-07	1.384991E-07	3.2684E-08	0	0	0	0	0	0	0	0	0	0	0	0	0
70	70819	9.654832E-07	6.282021E-07	1.4826E-07	0	0	0	0	0	0	0	0	0	0	0	0	0
70	76231	1.591811E-06	1.029221E-06	2.419E-07	0	0	0	0	0	0	0	0	0	0	0	0	0.0035
70	92590	7.288011E-06	4.742814E-06	1.1191E-06	0	0	0	0	0	0	0	0	0	0	0	0	0
70	934482	0.428509067	0.333299819	0.07863757	2506966	0.82452334	0.61867038	0.02907751	3	0.5625		0.198	0	0	0	0	0
70	20521	8.375586E-09	5.449662E-09	1.286E-09	0	0	0	0	0	0	0	0	0	0	0	0	0
70	237084	0.129818544	0.089043556	0.021101428	0	0	0	0	0	0	0	0	0	0	0	0	0
70	64610	5.476999E-07	3.563671E-07	8.4103E-08	239128	0.126572515	0.03460306	0.00162634	0	0	0	0	0.25	1	0	0	0
70	92290	6.837625E-06	4.448992E-06	1.055E-06	0	0	0	0	0	0	0	0	0	0	0	0	0
70	426698	0.16346287	0.113680823	0.02682667	4723	8.35364E-06	1.9524E-06	9.1762E-08	0	0	0	0	0	0	0	0	0
70	316236	0.416012915	0.097604486	0.023031466	151793	0.017929778	0.0043772	0.00020103	0	0	0	0	0	0	0	0	0
70	7216000	0.621983589	0.635401743	0.13299481	0	0	0	0	0	0	0	0	0	0	0	0	0
70	113678	4.880039E-05	3.123485E-05	7.3714E-06	32331	0.000106834	2.4956E-05	1.172E-06	0	0	0	0	0	0	0	0	0
70	85318	3.632E-06	2.356675E-06	5.5618E-07	0	0	0	0	0	0	0	0	0	0	0	0	0
70	62076	4.344721E-07	2.826948E-07	6.6716E-08	0	0	0	0	0	0	0	0	0	0	0	0	0
70	3483	5.592321E-05	3.853445E-05	8.7448E-11	0	0	0	0	0	0	0	0	0	0	0	0	0
70	115983	5.694886E-10	3.705435E-10	9.0941E-06	0	0	0	0	0	0	0	0	0	0	0	0	0
70	93291	3.589431E-07	2.335493E-07	5.5118E-08	2825	4.8165E-06	1.1229E-06	5.2778E-08	0	0	0	0	0	0	0	0	0
70	59988	1.480851E-05	9.635662E-06	2.2739E-06	3061	5.23892E-06	1.22275E-06	5.74645E-08	0	0	0	0	0	0	0	0	0
70	100770	9.645761718E-10	0.585588247	5.2038E-10	1680	2.7935E-06	6.5326E-07	3.0661E-08	0	0	0	0	0	0	0	0	0
70	10000000	3.398882E-09	2.205018E-09	3.1407E-07	0	0	0	0	0	0	0	0	0	0	0	0	0
70	12843	0.422102253	0.327217146	0.07722325	0	0	0	0	0	0	0	0	0	0	0	0	0
70	939064	0.854144127	0.036609490	0.00849822	2825	4.8165E-06	1.1229E-06	5.2778E-08	0	0	0	0	0	0	0	0	0
70	190817	0.417023435	0.322491979	0.07610811	34425	0.00011974	2.7949E-05	1.3136E-06	0	0	0	0	0	0	0	0	0
70	922704	0.417023435	0.322491979	0.07610811	7225	1.34852E-05	3.1472E-06	1.4792E-07	0	0	0	0	0	0	0	0	0
70	922704	0.307960786	0.237435963	0.08536767	0	0	0	0	0	0	0	0	0	0	0	0	0
70	785000	1.117265E-08	7.269555E-09	1.7156E-09	0	0	0	0	0	0	0	0	0	0	0	0	0
70	23263	0.018511284	0.010026134	0.00236617	0	0	0	0	0	0	0	0	0	0	0	0	0
70	176956	0.090160125	0.000104194	2.459E-05	0	0	0	0	0	0	0	0	0	0	0	0	0
70	126900	3.015154E-07	1.961965E-07	4.6302E-08	0	0	0	0	0	0	0	0	0	0	0	0	0
70	59084	0.417023435	0.322491979	0.07610811	5380	9.66048E-06	2.2546E-06	1.0596E-07	0	0	0	0	0	0	0	0	0
70	922704	0.690754895	0.601346033	0.14191766	4775	8.46688E-06	1.9765E-06	9.2872E-08	0	0	0	0	0	0	0	0	0
70	10720425	1.018148E-07	6.624645E-08	1.5634E-08	0	0	0	0	0	0	0	0	0	0	0	0	0
70	46275	4.309580E-06	2.804080E-06	6.6176E-07	0	0	0	0	0	0	0	0	0	0	0	0	0
70	87225	0.002071732	0.001613912	0.00031839	0	0	0	0	0	0	0	0	0	0	0	0	0
70	155000	2.043528E-06	1.330799E-06	3.1407E-07	0	0	0	0	0	0	0	0	0	0	0	0	0
70	79049	1.059611E-08	6.894455E-09	1.6271E-09	0	0	0	0	0	0	0	0	0	0	0	0	0
70	12753	0.600143531	0.50215991	5.377E-09	0	0	0	0	0	0	0	0	0	0	0	0	0
70	6103081	3.501658E-08	2.278415E-08	2.6372E-05	24574	6.74721E-05	1.574E-05	7.4015E-07	0	0	0	0	0	0	0	0	0
70	34865	0.000171731	0.000111746	1.056E-06	0	0	0	0	0	0	0	0	0	0	0	0	0
70	127668	6.837625E-06	4.448992E-06	1.7636E-05	64010	0.000485291	0.00011332	5.3262E-06	0	0	0	0	0	0	0	0	0
70	92290	5.784E-08	3.763438E-08	7.5947E-07	0	0	0	0	0	0	0	0	0	0	0	0	0
70	40191	4.945860E-06	3.218099E-06	8.8817E-09	1590	2.64071E-06	6.1629E-07	2.8965E-08	0	0	0	0	0	0	0	0	0
70	88736	1.711E-06	1.113E-06	2.6286E-07	0	0	0	0	0	0	0	0	0	0	0	0	0
70	77097	1.62324E-08	1.055634E-08	2.4913E-09	0	0	0	0	0	0	0	0	0	0	0	0	0
70	26939	6.323166E-09	4.114117E-09	9.7094E-10	0	0	0	0	0	0	0	0	0	0	0	0	0
70	17982	0.000154102	0.000354102	8.3095E-05	0	0	0	0	0	0	0	0	0	0	0	0	0
70	140263	5.429658E-06	3.532872E-06	8.3376E-07	0	0	0	0	0	0	0	0	0	0	0	0	0
70	89760	0.55325477	0.453592265	0.10704825	0	0	0	0	2	0.53125		0.187	0	0	0	0	0
70	3713739	3.091314E-06	2.011413E-06	4.7469E-07	2200000	0.808165972	0.5907462	0.02776507	0	0	0	0	0	0	0	0	0
70	83580	0.000114825	7.472855E-05	1.7636E-05	0	0	0	0	0	0	0	0	0	0	0	0	0
70	123252	0.002001962	0.001303649	0.00030766	0	0	0	0	0	0	0	0	0	0	0	0	0
70	154624	5.441543E-06	3.540661E-06	8.3558E-07	0	0	0	0	0	0	0	0	0	0	0	0	0
70	89784	5.789435E-06	3.766965E-06	8.89E-07	0	0	0	0	0	0	0	0	0	0	0	0	0
70	99464	1.450199E-07	9.435885E-08	2.2269E-08	0	0	0	0	0	0	0	0	0	0	0	0	0
70	51089	0.048576681	0.03233631	0.00760714	0	0	0	0	0	0	0	0	0	0	0	0	0
70	189626	0.237425358	0.170248732	0.0401787	240	3.87852E-07	9.0516E-08	4.2543E-09	0	0	0	0	0	0	0	0	0
70	653901	7.529012E-06	4.898885E-06	1.1561E-06	0	0	0	0	0	0	0	0	0	0	0	0	0
70	93347	2.061755E-07	1.341552E-07	3.1659E-08	0	0	0	0	0	0	0	0	0	0	0	0	0
70	92290	6.837625E-06	4.448992E-06	1.055E-06	75474	0.000793189	0.00018529	8.7087E-06	0	0	0	0	0	0	0	0	0
70	1525000	0.510302669	0.416695821	0.09692421	14042	3.03566E-05	7.0848E-06	3.3299E-07	0	0	0	0	0	0	0	0	0
70	853588	0.356916741	0.269066888	0.06350026	0	0	0	0	0	0	0	0	0	0	0	0	0
70	72056	1.080085E-06	7.03764E-07	1.6597E-07	0	0	0	0	0	0	0	0	0	0	0	0	0
70	72381	1.11137E-06	7.24429E-07	1.7097E-07	0	0	0	0	0	0	0	0	0	0	0	0	0
70	73675	1.252886E-06	8.15199E-07	1.9239E-07	0	0	0	0	0	0	0	0	0	0	0	0	0
70	119024	7.812931E-05	5.08373E-05	1.1998E-05	0	0	0	0	0	0	0	0	0	0	0	0	0
70	59086	3.309303E-07	2.150445E-07	5.0751E-08	0	0	0	0	0	0	0	0	0	0	0	0	0
70	55663	2.41523E-07	1.5715E-07	3.7087E-08	0	0	0	0	0	0	0	0	0	0	0	0	0
70	78305	1.911143E-06	1.24351E-06	2.9347E-07	0	0	0	0	0	0	0	0	0	0	0	0	0
70	112791	4.43771E-05	2.88098E-05	6.7991E-06	720	1.17488E-06	2.7419E-07	1.2887E-08	0	0	0	0	0	0	0	0	0

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DAYHOSP	Score	Score	Score	DAYLOST	Score	Score	Score	DAYREST	Score	Score	FLSPL	Score	Score	OLSPL	Score	Score	HYSPL	Score	Score	TOTLOSS	Score	Score	MHRS	Score	Utility	Score	Score

EVENT1	DAMCOST	Score	Utility	Score	INJCOST	Score	Utility	Score	TOTFTL	Score	Score	TOTAL DISABILITY	Score	Score	PARTIAL DISABILITY	Score	Score	Score
70	28314	1.85927E-08	1.20976E-08	2.855E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0
70	56455	2.59733E-07	1.68998E-07	3.9884E-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0
70	383681	0.154121122	0.106773619	0.02519957	840	1.37403E-06	3.2067E-07	1.5071E-08	0	0	0	0	0	0	0	0	0	0
70	303754	0.139551899	0.096102628	0.02268022	33319	0.000112788	2.6326E-07	1.23738E-06	0	0	0	0	0	0	0	0	0	0
70	153154	0.001751017	0.001140112	0.00026907	0	0	0	0	0	0	0	0	0	0	0	0	0	0
70	998981	0.498783036	0.399439856	0.09426781	0	0	0	0	0	0	0	0	0	0	0	0	0	0
70	128172	0.00011798	0.000116997	2.7611E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0
70	28314	1.85927E-08	1.20976E-08	2.855E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0
70	302866	0.139408069	0.095997912	0.02266551	0	0	0	0	0	0	0	0	0	0	0	0	0	0
70	54920	2.25635E-07	1.46812E-07	3.4648E-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0
70	110498	3.59289E-05	2.33779E-05	5.5172E-06	0	0	0	0	0	0	0	0	0	0	0	0	0	0
70	10060	2.26758E-09	1.47542E-09	3.482E-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
70	474277	0.175230733	0.122457132	0.02889988	0	0	0	0	0	0	0	0	0	0	0	0	0	0
70	90739	5.93636E-06	3.86256E-06	9.1156E-07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
70	577909	0.207026116	0.146590166	0.03459528	2740000	0.816941076	0.6406251	0.03010938	4	0.59375	0.209	0	0	0	0	0	0	0
70	6723508	0.612318872	0.519662236	0.12165469	0	0	0	0	0	0	0	0	0	0.0105	0	0	0	0
70	123219	0.000108582	6.3701E-05	1.6213E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0
70	85899	3.81898E-06	2.84486E-06	5.8643E-07	1370000	0.763937571	0.52058743	0.02446761	2	0.53125	0.187	1	0.75	0	0	0	0	0
70	6765253	0.61294184	0.515762274	0.12171114	0	0	0	0	0	0	0	0	0	0	0	0	0	0
70	579129	0.207604105	0.147034535	0.03470015	0	0	0	0	0	0	0	0	0	0	0	0	0	0
70	100568	1.453E-05	9.45933E-06	2.2324E-06	0	0	0	0	0	0	0	0	0	0	0	0	0	0
70	109008	3.13678E-05	2.04101E-05	4.8168E-06	0	0	0	0	0	0	0	0	0	0	0	0	0	0
70	67576	7.18106E-07	4.67243E-07	1.1027E-07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
70	301625	0.139207675	0.095852035	0.02262108	2530	4.28324E-06	9.9962E-07	4.6982E-08	0	0	0	0	0	0	0	0	0	0
70	50521	1.50639E-07	9.80147E-08	2.3131E-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0
70	181977	0.02419741	0.018598808	0.00375212	0	0	0	0	0	0	0	0	0	0	0	0	0	0
70	37844	4.64113E-08	3.0198E-08	7.1267E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0
70	953428	0.446773609	0.349906783	0.082578	1213788	0.755613466	0.50820803	0.02383578	1	0.5	0.176	0	0	0	0	0	0	0
70	922704	0.417023435	0.332491979	0.07610811	0	0	0	0	0	0	0	0	0	0.105	0	0	0	0
70	110911	3.40578E-05	2.21604E-05	5.2298E-06	0	0	0	0	0	0	0	0	0	0	0	0	0	0
70	937404	0.066058923	0.041146303	0.00972144	0	0	0	0	0	0	0	0	0	0	0	0	0	0
70	193000	6.75801E-07	0.01014855	1.01434E-07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
70	66875	0.146561676	0.101220837	0.02388812	0	0	0	0	0	0	0	0	0	0	0	0	0	0
70	344498	1.49745E-06	9.7433E-07	2.2994E-07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
70	75630	2.26758E-09	1.47542E-09	3.482E-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
70	10060	2.26758E-09	1.47542E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
71	145613	0.000888856	0.00057334	0.00013531	0	0	0	0	0	0	0	0	0	0	0	0	0	0
71	148520	0.001147960	0.0007284	0.00017636	0	0	0	0	0	0	0	0	0	0	0	0	0	0
71	207727	0.125340731	0.086246575	0.02035419	0	0	0	0	0	0	0	0	0	0	0	0	0	0
71	58060	2.99123E-07	1.94693E-07	4.5948E-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0
73	39106	4.75693E-08	3.09515E-08	7.3045E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0
73	23393	1.0864E-08	7.0689E-09	1.6682E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0
73	13865	3.39874E-09	2.2114E-09	5.219E-10	0	0	0	0	0	0	0	0	0	0	0	0.25	0	0.0035
76	932784	0.417023435	0.332491979	0.07610811	48915	0.000246161	5.7466E-05	2.70995E-06	0	0	0	0	0	0	0	0	0	0
76	68412	7.75065E-07	5.01591E-07	1.1902E-07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
76	62435	5.39735E-07	3.4467E-07	8.1344E-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0
76	689600	0.254085126	0.183463354	0.04329712	7666	1.44422E-05	3.3706E-06	1.5842E-07	0	0	0	0	0	0	0	0	0	0
76	2131785	0.522210297	0.422440221	0.09969589	0	0	0	0	0	0	0	0	0	0	0	0	0	0
76	18411	4.31771E-09	4.31771E-09	1.019E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0
76	56671	2.64926E-07	1.72377E-07	4.0681E-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0
76	51410	1.63461E-07	1.06359E-07	2.51E-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0
76	125718	0.00011437	9.35553E-05	2.2079E-05	960	1.57414E-06	3.6737E-07	1.7366E-08	0	0	0	0	0	0	0	0	0	0
77	4204192	0.562879484	0.463412271	0.1093653	94830	0.001775582	0.00041528	1.9518E-05	0	0	0	0	0	0	1	0.25	0	0.0035
77	190817	0.054144427	0.054144427	0.00849822	255620	0.127130854	0.03484423	0.00163768	0	0	0	0	0	0	0	0	0	0
77	4601000	0.570666496	0.471411576	0.11125313	4635	8.194795E-06	1.9125E-06	8.9888E-08	0	0	0	0	0	0	0	0	0	0
77	171863	0.099628863	0.06628949	0.00148432	0	0	0	0	0	0	0	0	0	0	0	0	0	0
77	251756	0.131718219	0.090416942	0.0213384	720	1.174885E-06	2.7419E-07	1.2887E-08	0	0	0	0	0	0	0	0	0	0
77	102242	1.69335E-05	1.10181E-05	2.600E-06	0	0	0	0	0	0	0	0	0	0	0	0	0	0
77	187792	0.04110167	0.037199098	0.00641708	23341	6.22714E-05	1.4534E-05	6.8309E-07	0	0	0	0	0	0	0	0	0	0
77	3756000	0.554084105	0.454437262	0.10724719	0	0	0	0	0	0	0	0	0	0	0	0	0	0
77	190817	0.054144427	0.036009409	0.00849822	0	0	0	0	0	0	0	0	0	0	0	0	0	0
77	29526	2.094152E-08	1.362505E-08	3.2157E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0
77	190817	0.054144427	0.036009409	0.00849822	0	0	0	0	0	0	0	0	0	0	0	0	0	0
77	190817	0.054144427	0.036009409	0.00849822	0	0	0	0	0	0	0	0	0	0	0	0	0	0
77	145709	0.000888594	0.00057838	0.0001365	44465	0.000199249	4.6511E-05	2.186E-06	0	0	0	0	0	0	1	0.25	0	0.0035
77	1306000	0.506004984	0.466484645	0.09593038	213078	0.12549251	0.03426037	0.00161024	0	0	0	0	0	0	0	0	0	0
77	3771069	0.554379821	0.454737985	0.10731816	0	0	0	0	0	0	0	0	0	0	0	0	0	0
77	169174	0.007356694	0.004918692	0.00116081	118604	0.004686129	0.00100991	5.169E-05	0	0	0	0	0	0	0	0	0	0
77	190817	0.054144427	0.036009409	0.00849822	5142	9.187466E-06	2.1442E-06	1.0078E-07	0	0	0	0	0	0	0	0	0	0
77	1220841	0.504333813	0.484851047	0.09554485	2200000	0.808165972	0.5907462	0.0277607	2	0.53125	0.187	0	0	0	0	0	0	0
77	190817	0.054144427	0.036009409	0.00849822	0	0	0	0	0	0	0	0	0	0	0	0	0	0
77	6143967	0.600945983	0.50299787	0.1187075	0	0	0	0	0	0	0	0	0	0	0	0	0	0
77	169973	0.008105705	0.005391325	0.00124875	0	0	0	0	0	0	0	0	0	0	0	0	0	0
77	3769775	0.554354428	0.454711159	0.10731207	0	0	0	0	0	0	0	0	0	0	0	0	0	0
78	41580	6.58448E-08	4.28453E-08	1.0111E-08	0	0	0	0	0	0	0	0	0	0	0	0	0	0
78	20014	7.99694E-09	5.2033E-09	1.228E-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0
78	81986	2.67326E-06	1.73939E-06	4.108E-07	0	0	0	0	0	0	0	0	0	0	0	0	0	0
78	163319	0.00442082	0.002881584	0.00068005	0	0	0	0	0	0	0	0	0	0	0	0.25	0	0.0035

EVENT1	DAMCOST	Score	Utility	Score	INJCOST	Score	Utility	Score	TOTFTL	Score	Score	TOTAL DISABILITY	Score	PARTIAL DISABILITY	Score	Score
80	43107	7.59055E-08	4.93887E-08	1.16563E-08	0	0	0	0	0	0	0	0	0	0	0	0
80	3442062	0.547923345	0.44818845	0.10577247	1104130	0.749770095	0.49966676	0.02348434	1	0.5	0.176	0	0	0	0	0
80	192316	0.062067854	0.04141198	0.00977323	0	0	0	0	0	0	0	0	0	0	0	0
80	54249	2.12164E-07	1.38047E-07	3.25791E-08	0	0	0	0	0	0	0	0	0	0	0	0
80	969196	0.464710931	0.3667564	0.08065451	89890	0.001448271	0.00033859	1.591E-05	1	0.5	0.176	1	0.75	0	0	0.0105
80	4600000	0.570646871	0.471391354	0.11124836	783358	0.246670866	0.07809361	0.00370988	1	0.5	0.176	0	0	0	0	0
80	140686	0.000562278	0.000365935	8.6361E-05	0	0	0	0	0	0	0	0	0	0	0	0
80	187616	0.040447849	0.026675374	0.00631332	0	0	0	0	0	0	0	0	0	0	0	0
80	1500000	0.509812066	0.410214356	0.09681059	1100000	0.749550019	0.49934744	0.02346933	1	0.5	0.176	0	0	0	0	0
80	34101	3.25698E-08	2.11854E-08	4.99971E-09	0	0	0	0	0	0	0	1	0.75	0	0.005	0.006125
80	6298517	0.603978793	0.506204352	0.11946313	1780315	0.785902121	0.55432589	0.02605332	5	0.625	0.22	0	0	2	0.4375	0.005
80	31615	2.56515E-08	1.66094E-08	3.8391E-09	0	0	0	0	0	0	0	0	0	0	0	0
80	25209	1.36357E-08	8.87223E-09	2.6938E-09	0	0	0	0	0	0	0	0	0	0	0	0
80	92290	0.478787547	0.380151032	0.08971564	2865000	0.84360198	0.65267838	0.03067588	4	0.59375	0.209	0	0	0	0	0
80	948158	6.83762E-06	4.44899E-06	1.0351E-06	480	7.79468E-07	1.8191E-07	8.5498E-09	0	0	0	0	0	0	0	0
80	744544	0.442342122	0.345781395	0.08160441	0	0	0	0	0	0	0	0	0	0	0	0
80	10000000	0.283306566	0.207071961	0.04486898	4800	8.51563E-06	1.9874E-06	9.3407E-08	0	0	0	0	0	0	0	0
80	247883	0.13117606	0.090024769	0.13815163	840	1.37403E-06	3.2067E-07	1.5071E-08	0	0	0	0	0	0	0	0
80	967146	0.462471362	0.364563309	0.086605488	3600	6.23012E-06	1.454E-06	6.8337E-08	0	0	0	0	0	0	0	0
80	11211	2.71036E-09	1.76353E-09	4.1619E-10	0	0	0	0	0	0	0	0	0	0	0	0
80	25348	1.39289E-08	8.99795E-09	2.1125E-09	0	0	0	0	0	0	0	0	0	0	0	0
80	12552	3.26031E-09	2.12136E-09	5.0064E-10	0	0	0	0	0	0	0	0	0	0	0	0
80	138471	0.000455533	0.000296933	1.8026E-09	0	0	0	0	0	0	0	0	0	0	0	0
80	23742	1.17396E-08	7.68409E-09	3.2039E-08	0	0	0	0	0	0	0	0	0	0	0	0
80	54467	2.08635E-07	1.35762E-07	7.0576E-05	0	0	0	0	0	0	0	0	0	0	0	0
80	16032795	0.806678002	0.739404819	0.17450033	93186	0.001638965	0.00033326	1.8013E-05	0	0	0	0	0	0	0	0
80	532538	0.198450292	0.140019961	0.03031471	1125	1.85087E-06	4.3195E-07	2.0302E-08	0	0	0	0	0	0	0	0
80	6604597	0.609981412	0.512573656	0.12696738	0	0	0	0	0	0	0	0	0	0	0	0
81	60000	3.59365E-07	2.33896E-07	5.5178E-08	0	0	0	0	0	0	0	0	0	0	0	0
82	11410	2.78745E-09	1.81369E-09	4.2803E-10	0	0	0	0	0	0	0	0	0	0	0	0
82	16096	5.45357E-10	3.54589E-10	9.3775E-10	0	0	0	0	0	0	0	0	0	0	0	0
82	13534	3.70818E-09	2.41277E-09	5.6941E-10	0	0	0	0	0	0	0	0	0	0	0	0
82	20609	8.44528E-09	5.49501E-09	1.2968E-09	0	0	0	0	0	0	0	0	0	0	0	0
82	13807	3.83597E-09	2.49552E-09	5.8965E-10	0	0	0	0	0	0	0	0	0	0	0	0
82	968233	0.463457231	0.365759056	0.08631933	2200000	0.808165972	0.5907462	0.02776507	2	0.53125	0.187	0	0	0	0	0
82	93168	6.57966E-06	4.28114E-06	1.0103E-06	0	0	0	0	0	0	0	0	0	0	0	0
82	64067	5.31189E-07	3.39117E-07	8.0013E-08	0	0	0	0	0	0	0	0	0	0	0	0
82	10000	2.26758E-09	1.47542E-09	3.483E-10	0	0	0	0	0	0	0	0	0	0	0	0
84	10202757	0.68085611	0.589865054	0.15920721	80635	0.000985506	0.00023027	1.0823E-05	0	0	0	0	0	0	0	0
84	37500	4.09321E-08	2.52356E-08	6.8996E-09	0	0	0	0	0	0	0	0	0	0	0	0
84	128956	0.000193113	0.000125661	2.9656E-05	0	0	0	0	0	0	0	0	0	0	0	0
84	29817	2.15451E-08	1.01066E-08	3.3084E-09	0	0	0	0	0	0	0	0	0	0	0	0
84	116740	2.55117E-05	1.65996E-05	3.9175E-06	0	0	0	0	0	0	0	0	0	0	0	0
84	10000	2.26758E-09	1.47542E-09	3.483E-10	0	0	0	0	0	0	0	0	0	0	0	0
85	325000	0.14310479	0.09869317	0.02339159	0	0	0	0	0	0	0	0	0	0	0	0
85	30632	2.30756E-08	1.50144E-08	3.5434E-09	0	0	0	0	0	0	0	0	0	0	0	0
85	74356	1.33171E-06	8.6744E-07	2.0472E-07	0	0	0	0	0	0	0	0	0	0	0	0
85	21008	8.81459E-09	5.7351E-09	1.3535E-09	0	0	0	0	0	0	0	0	0	0	0	0
85	353670	0.148250967	0.102462273	0.0241811	0	0	0	0	0	0	0	0	0	0	0	0
85	69647	8.67547E-07	5.6447E-07	1.3322E-07	0	0	0	0	0	0	0	0	0	0	0	0
85	900752	0.396625754	0.304071667	0.07176091	0	0	0	0	0	0	0	0	0	0	0	0
85	10000	2.26758E-09	1.47542E-09	3.483E-10	0	0	0	0	0	0	0	0	0	0	0	0
85	69900	8.87812E-07	5.7766E-07	1.3633E-07	0	0	0	0	0	0	0	0	0	0	0	0
85	65771	6.08979E-07	3.96239E-07	9.3512E-08	0	0	0	0	0	0	0	0	0	0	0	0
86	105302	2.37088E-05	1.45611E-05	3.4364E-06	0	0	0	0	0	0	0	0	0	0	0	0
86	49970	1.43175E-07	9.31585E-08	2.1985E-08	0	0	0	0	0	0	0	0	0	0	0	0
86	150000	0.001313606	0.000855216	0.00020183	0	0	0	0	0	0	0	0	0	0	0	0
86	99348	1.30084E-05	8.46411E-06	1.9975E-06	0	0	0	0	0	0	0	0	0	0	0	0
88	193731	0.070608334	0.047274056	0.001115668	0	0	0	0	0	0	0	0	0	0	0	0
89	594009	0.213039757	0.151224426	0.03568896	0	0	0	0	0	0	0	0	0	0	0	0
91	26478835	1	1	0.236	3840000	0.895557029	0.75372235	0.03542495	5	0.625	0.22	0	0	0	0	0
91	10000	1.26758E-09	1.47542E-09	3.483E-10	0	0	0	0	0	0	0	0	0	0	0	0
93	16540	5.35686E-09	3.4858E-09	8.2258E-09	0	0	0	0	0	0	0	0	0	0	0	0
93	131025	0.000233174	0.000151731	3.5809E-05	0	0	0	0	0	0	0	0	0	0	0	0
94	52876	1.87037E-07	1.21698E-07	2.8721E-08	0	0	0	0	0	0	0	0	0	0	0	0
94	128686	0.000118441	0.000122607	2.8935E-05	0	0	0	0	0	0	0	0	0	0	0	0

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DAYHOSP	Score	Score	DAYLOST	Score	Score	DAYREST	Score	Score	FLSPL	Score	Score	OLSPL	Score	Score	HYSPL	Score	Score	TOTLOSS	Score	Score	MHRS	Score	Utility	Score	Score
0	0	0	1	6.93396E-06	1.2481E-07	1	0.004464286	0.00015625		0	0		0	0		0	0	0	0	0	592	0	0	0	0.00016
5	0.081730769	0.00343269	0	0	0	15	0.076612903	0.00268145	5	1	0.039	3	0.25	0.00975	1	0.083333	0.00325	1	0	0	0	0.0246875	0.0246883	0.00153068	0.3649
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0	0	1	0.062	754	0.798262881	0.7982684	0.04949264	0.12127
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0	0	0	0	292	0	0	0	3.3E-08
15	0.128739316	0.00540705	140	0.955576692	0.01720038	195	0.554904832	0.01942167	5	1	0.039	3	0.25	0.00975	2	0.166667	0.0065	1	0	0	0	0.037352412	0.0373536	0.00231593	0.18617
53	0.270833333	0.011375	6	0.000572663	1.0308E-05	59	0.505124451	0.01767936		0	0	3	0.25	0.00975		0	0	1	1	0.062	0	0	0	0	0.40227
0	0	0	17	0.374700559	0.00674461	0	0	0		0	0		0	0		0	0	0	1	0.062	316	0	0	0	0.06883
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0	0	0	0	3100	0.031889504	0.0318906	0.00197721	0.00829
0	0	0	0	0	0	0	0	0		0	0	2	0.166667	0.0065		0	0	1	0	0	0	0	0	0	0.30278
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0	0	1	0.062	474	0	0	0	0.062
248	1	0.042	98	0.891446873	0.01604604	442	0.645314788	0.02258602	5	1	0.039	1	0.083333	0.00325	1	0.083333	0.00325	1	0	0	0	0	0	0	0.50827
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0	0	1	0.062	0	0.017890625	0.0178912	0.00110926	0.06311
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0	0	0	0	408	0	0	0	2.1E-09
0	0	0	0	0	0	0	0	0	5	1	0.039	2	0.166667	0.0065	2	0.166667	0.0065	1	0	0	0	0.089896258	0.089899	0.00557374	0.38697
0	0	0	0	0	0	4	0.017857143	0.000625		0	0	2	0.166667	0.0065	1	0.083333	0.00325	1	1	0.062	0	0	0	0	0.07238
0	0	0	0	0	0	0	0	0		0	0	3	0.25	0.00975	2	0.166667	0.0065	1	1	0.062	0	0.00390625	0.0039064	0.0002422	0.1601
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0	0	1	0.062	229	0.00140625	0.0014063	8.719E-05	0.11096
0	0	0	0	0	0	40	0.429435484	0.01503024	1	0.083333	0.00325		0	0	1	0.083333	0.00325	1	0	0	0	0.006640625	0.0066408	0.00041173	0.16009
0	0	0	0	0	0	7	0.03125	0.00109375		0	0		0	0		0	0	0	1	0.062	960	0.242364496	0.2423708	0.01502699	0.09937
0	0	0	0	0	0	30	0.288306452	0.01009073		0	0	3	0.25	0.00975	2	0.166667	0.0065	1	0	0	0	0.002734375	0.0027345	0.00016954	0.11257
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0	0	1	0.062	50	0.046959254	0.0469608	0.00291157	0.06491
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0	0	0	0	18	0	0	0	2.1E-09
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0	0	0	0	85	0.075222469	0.0752248	0.00466394	0.00466
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0	0	0	0	1732	0	0	0	7.1E-05
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0	0	0	0	35	0	0	0	1.8E-09
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0	0	0	0	581	0.0078125	0.0078128	0.00048439	0.00048
21	0.151175214	0.00634936	60	0.75908419	0.01366352	480	0.659224012	0.02307284		0	0		0	0		0	0	1	0	0	0	0	0	0	0.2176
0	0	0	3	5.33504E-05	9.6031E-07	0	0	0	5	1	0.039		0	0		0	0	0	1	0.062	845	0.004375	0.0043751	0.00027126	0.13432
0	0	0	0	0	0	0	0	0		0	0	2	0.166667	0.0065		0	0	1	0	0	0	0.000234375	0.0002344	1.4532E-05	0.12748
																							0	0	0
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0	0	0	0	100	0.001875	0.0018751	0.00011625	0.00012
																							0	0	0
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0	0	0	0	56	0	0	0	4.3E-10
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0	0	0	0	3	0.0003125	0.0003125	1.9376E-05	1.9E-05
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0	0	0	0	20	0.0009375	0.0009375	5.8127E-05	5.8E-05
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0	0	0	0	24	0.00078125	0.0007813	4.8439E-05	4.8E-05
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0	0	0	0	10	0	0	0	5.9E-10
0	0	0	0	0	0	0	0	0	5	1	0.039	3	0.25	0.00975	1	0.083333	0.00325	1	0	0	0	0	0	0	0.35308
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0	0	1	0.062	4	0	0	0	0.062
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0	0	0	0	12	0.0234375	0.0234383	0.00145317	0.00145
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0	0	0	0	10	0.01125	0.0112504	0.00069752	0.0007
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0	0	0	0	0	0.01015625	0.0101566	0.00062971	0.00063
																							0	0	0
20	0.147435897	0.00619231	73	0.816461266	0.0146963	337	0.606881406	0.02124085		0	0		0	0	1	0.083333	0.00325	1	0	0	0	0	0	0	0.1846
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0	0	1	0.062	300	0	0	0	0.062
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0	0	0	0	144	0.198995589	0.199001	0.01233806	0.01237
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0	0	0	0	130	0.00328125	0.0032814	0.00020344	0.0002
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0	0	0	0	0	0.008984375	0.0089847	0.00055705	0.00056
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0	0	0	0	0	0.000859375	0.0008594	5.3283E-05	5.3E-05
																							0	0	0
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0	0	0	0	1563	0.0228125	0.0228133	0.00141442	0.02471
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0	0	0	0	42	0.051987501	0.0519892	0.00322333	0.00322
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0	0	0	0	115	0.0096875	0.0096878	0.00060065	0.0006
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0	0	0	0	11	0	0	0	1.4E-09
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0	0	0	0	85	0.003125	0.0031251	0.00019376	0.02437
0	0	0	0	0	0	0	0	0		0	0	1	0.083333	0.00325		0	0	0	0	0	292	0	0	0	0.00325
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0	0	0	0	633	0.05338365	0.0533854	0.00330989	0.07507
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0	0	0	0	124	0.01859375	0.0185944	0.00115285	0.00115
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0	0	0	0	0	0	0	0	1.4E-07
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0	0	0	0	40	0.0028125	0.0028126	0.00017438	0.00017
																							0	0	0
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0	0	0	0	647	0.002265625	0.0022657	0.00014047	0.00014
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0	0	0	0	238	0	0	0	2.2E-08
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0	0	0	0	0	0.999432411	0.9994324	0.06196481	0.06217
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0	0	0	0	36	0	0	0	2E-06
																							0	0	0
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0	0	0	0	29	0	0	0	0.01116
																							0	0	0
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0	0	0	0	7609	0.009375	0.0093753	0.00058127	0.03627
																							0	0	0
0	0	0	0	0	0	0	0	0	5	1	0.039	5	1	0.039	4	0.5	0.0195	1	0	0	0	0	0	0	0.58892
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0	0	1	0.062	0	0.005390625	0.0053908	0.00033423	0.06233
																							0	0	0
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0	0	0	0	120	0	0	0	8.2E-10
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0	0	0	0	632	0	0	0	3.6E-05
																							0	0	0
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0	0	0	0	69	0.005390625	0.0053908	0.00033423	0.00033
0	0	0	0	0	0	0	0	0		0	0		0	0		0	0	0	0	0	105	0.008203125	0.0082034	0.00050861	0.00054

Appendix G: Average Criteria Scores

EVENT	Unweighted Utility Damage to Equip Prop	Weight Damage to Equip Prop	Weighted Damage to Equip Prop	Unweighted Utility Degree Injury/Illness	Weight Degree Injury/Illness	Weighted Degree Injury/Illness	Unweighted Utility Environmental Damage	Weight Environmental Damage	Weighted Environmental Damage	Unweighted Utility Other MSN Factors	Weight Other MSN Factors	Weighted Other MSN Factors	Total Severity
38	0.360201	0.236	0.085007312	0.312426	0.47	0.19974022	0.431845	0.117	0.051244865	0.380437	0.17	0.067313547	0.383428
91	0.500000	0.236	0.118	0.271717	0.47	0.127707163	0.416645	0.117	0.048745125	0.175943	0.17	0.03114119	0.325594
37	0.327101	0.236	0.077195821	0.290369	0.47	0.136473305	0.333390	0.117	0.0389961	0.351678	0.17	0.059246036	0.314912
52	0.600513	0.236	0.141720966	0.000000	0.47	5.5553E-08	0.000000	0.117	0	0.356215	0.17	0.060540971	0.204771
30	0.260487	0.236	0.061369322	0.167278	0.47	0.078620303	0.113903	0.117	0.013326649	0.364932	0.17	0.06469303	0.200410
39	0.497537	0.236	0.117418768	0.003986	0.47	0.002013599	0.000000	0.117	0	0.350000	0.17	0.06195	0.182182
8	0.330250	0.236	0.07793899	0.077371	0.47	0.03636423	0.18449	0.117	0.021819246	0.204000	0.17	0.03610086	0.172230
35	0.252431	0.236	0.059573761	0.105731	0.47	0.049693339	0.097609	0.117	0.011420286	0.206312	0.17	0.0351719	0.157205
9	0.322492	0.236	0.076108107	0.000000	0.47	0	0.000000	0.117	0	0.350000	0.17	0.06195	0.138058
26	0.167696	0.236	0.039576333	0.108124	0.47	0.051147222	0.109364	0.117	0.012793595	0.178316	0.17	0.03156189	0.135081
51	0.194367	0.236	0.045870641	0.084509	0.47	0.039991649	0.092903	0.117	0.010869603	0.181975	0.17	0.03320949	0.128941
80	0.326533	0.236	0.077061434	0.003763	0.47	0.001768616	0.03885	0.117	0.004549545	0.257592	0.17	0.043793163	0.128927
48	0.180173	0.236	0.042520744	0.026780	0.47	0.012586783	0.111100	0.117	0.0129987	0.274456	0.17	0.046578693	0.116685
77	0.092820	0.236	0.021905537	0.000000	0.47	1.40622E-09	0.083325	0.117	0.009749025	0.205919	0.17	0.035644799	0.068102
55	0.204301	0.236	0.048215044	0.000000	0.47	4.67034E-08	0.027775	0.117	0.003249675	0.049890	0.17	0.00830339	0.066295
46	0.083259	0.236	0.019649077	0.033207	0.47	0.015607436	0.043130	0.117	0.005046243	0.102017	0.17	0.01805694	0.058360
70	0.148933	0.236	0.035144222	0.004192	0.47	0.00197019	0.042925	0.117	0.005022225	0.091047	0.17	0.016113346	0.058236
34	0.242197	0.236	0.057148554	0.000000	0.47	0	0.000000	0.117	0.000000	0.000000	0.17	0	0.057159
28	0.140842	0.236	0.033238699	0.002780	0.47	0.001306376	0.124988	0.117	0.014623358	0.037926	0.17	0.006712908	0.055882
61	0.103165	0.236	0.024347051	0.002408	0.47	0.001131707	0.006172	0.117	0.00072215	0.128345	0.17	0.022717023	0.048918
76	0.157940	0.236	0.037273891	0.004593	0.47	0.002158803	0.000000	0.117	0	0.034382	0.17	0.00608563	0.045518
20	0.098134	0.236	0.023160799	0.002189	0.47	0.001028985	0.004629	0.117	0.000541613	0.104614	0.17	0.018516732	0.043794
84	0.099297	0.236	0.023434028	0.000000	0.47	0	0.041663	0.117	0.004874513	0.084225	0.17	0.014907855	0.043216
29	0.036576	0.236	0.008653042	0.045693	0.47	0.021475604	0.044440	0.117	0.005199948	0.036641	0.17	0.0064854	0.041793
82	0.151224	0.236	0.035688965	0.000000	0.47	0	0.000000	0.117	0	0.003281	0.17	0.00058081	0.036270
89	0.000000	0.236	0	0.074890	0.47	0.035198301	0.000000	0.117	0	0.000640	0.17	0.000113335	0.035512
1	0.090048	0.236	0.021251341	0.000000	0.47	0	0.000000	0.117	0	0.077074	0.17	0.01364217	0.034894
2	0.068474	0.236	0.016159841	0.000000	0.47	0	0.00925	0.117	0.001083225	0.078505	0.17	0.013895466	0.031139
57	0.062440	0.236	0.014735733	0.012883	0.47	0.006055201	0.016634	0.117	0.001946234	0.045618	0.17	0.00807442	0.030812
50	0.051881	0.236	0.01237793	0.018408	0.47	0.003951712	0.025130	0.117	0.002940182	0.053525	0.17	0.009477403	0.030144
64	0.123091	0.236	0.029049973	0.000000	0.47	4.3I015E-09	0.000000	0.117	0	0.002541	0.17	0.000449814	0.029499
44	0.012003	0.236	0.00283374	0.005923	0.47	0.002783945	0.000000	0.117	0	0.121822	0.17	0.021562474	0.027179
6	0.000000	0.236	3.8631IE-10	0.009408	0.47	0.004421672	0.000000	0.117	0	0.108905	0.17	0.01927618	0.023698
4	0.014187	0.236	0.003395269	0.036467	0.47	0.01713934	0.000000	0.117	0	0.016997	0.17	0.003008391	0.023543
40	0.037115	0.236	0.008759034	0.011680	0.47	0.005489716	0.066650	0.117	0.00077809I	0.003473	0.17	0.000614681	0.022594
22	0.036195	0.236	0.008542042	0.012497	0.47	0.005873669	0.003876	0.117	0.000453443	0.037103	0.17	0.0065672I3	0.021356
32	0.044762	0.236	0.01150759	0.000000	0.47	0	0.000000	0.117	0	0.035482	0.17	0.00999203I	0.021328
60	0.026559	0.236	0.00626864I	0.007649	0.47	0.003591182	0.012962	0.117	0.001516315	0.032596	0.17	0.00576947I	0.017149
24	0.034702	0.236	0.00818664	0.009896	0.47	0.004650944	0.002809	0.117	0.00032861I	0.019981	0.17	0.00353665	0.016706
36	0.024386	0.236	0.005115198	0.000091	0.47	4.28744E-05	0.000000	0.117	0.000953238	0.045268	0.17	0.00801235I	0.015566
12	0.050523	0.236	0.011923417	0.000000	0.47	0	0.00277I	0.117	0.000324968	0.003684	0.17	0.001006116	0.014764
86	0.020127	0.236	0.00476994I	0.000000	0.47	0	0.000000	0.117	0	0.040241	0.17	0.007122714	0.013255
23	0.047274	0.236	0.011156677	0.000000	0.47	0	0.000000	0.117	0	0.000000	0.17	0	0.011873
85	0.000000	0.236	7.1I213E-10	0.000000	0.47	0	0.000000	0.117	0	0.057434	0.17	0.0101658	0.011157
54	0.030527	0.236	0.007204446	0.000000	0.47	0	0.006944	0.117	0.000812419	0.001076	0.17	0.000190374	0.010166
66	0.021892	0.236	0.005166476	0.000000	0.47	0	0.000000	0.117	0	0.006132	0.17	0.001085171	0.007395
63	0.000011	0.236	2.61593E-06	0.000926	0.47	0.000435438	0.024851	0.117	0.002907604	0.025156	0.17	0.004432676	0.007064
71	0.000028	0.236	6.4935E-06	0.000000	0.47	0	0.000000	0.117	0	0.009327	0.17	0.001650I01	0.004891
5	0.010939	0.236	0.002581621	0.000000	0.47	0	0.000000	0.117	0	0.008114	0.17	0.001436136	0.004018
25	0.000721	0.236	0.000170119	0.000000	0.47	0	0.000000	0.117	0	0.011855	0.17	0.002098368	0.002269
58	0.000000	0.236	3.164495E-09	0.000000	0.47	0	0.000000	0.117	0	0.010578	0.17	0.001872113	0.001872
78	0.004167	0.236	0.001039606	0.000000	0.47	0	0.000000	0.117	0	0.001943	0.17	0.000343934	0.001375
73	0.000476	0.236	0.000112307	0.000000	0.47	0	0.000000	0.117	0	0.003117	0.17	0.000551719	0.000664
47	0.000061	0.236	1.44I2E-05	0.000000	0.47	0	0.000000	0.117	0	0.002379	0.17	0.000421081	0.000436
33	0.000050	0.236	1.17092E-05	0.000000	0.47	0	0.000000	0.117	0	0.001960	0.17	0.000346867	0.000359
94	0.000000	0.236	7.77642E-09	0.000000	0.47	0	0.000000	0.117	0	0.001384	0.17	0.000245025	0.000245
3	0.000000	0.236	1.02544E-09	0.000000	0.47	0	0.000000	0.117	0	0.001367	0.17	0.000242	0.000242
49	0.000000	0.236	0.001169E-09	0.000000	0.47	0	0.000000	0.117	0	0.001030	0.17	0.000182307	0.000182
15	0.000000	0.236	5.5178E-08	0.000000	0.47	0	0.000000	0.117	0	0.000656	0.17	0.00011616	0.000116
11	0.000000	0.236	2.04600E-09	0.000000	0.47	0	0.000000	0.117	0	0.000520	0.17	9.19602E-05	0.000092
7	0.000076	0.236	1.79047E-05	0.000000	0.47	0	0.000000	0.117	0	0.000000	0.17	0	0.000018
93	0.000001	0.236	1.81892E-07	0.000000	0.47	0	0.000000	0.117	0	0.000000	0.17	0	0.000000
69	0.000000	0.236	5.37852E-08	0.000000	0.47	0	0.000000	0.117	0	0.000000	0.17	0	0.000000
68	0.000000	0.236	5.37852E-08	0.000000	0.47	0	0.000000	0.117	0	0.000000	0.17	0	0.000000

Appendix H: Sensitivity Analysis Graphs

H.1 General: This Appendix presents graphs developed for sensitivity analysis of criteria weights for accidents and hazards. These graphs were referred to but not presented in Chapter Four.
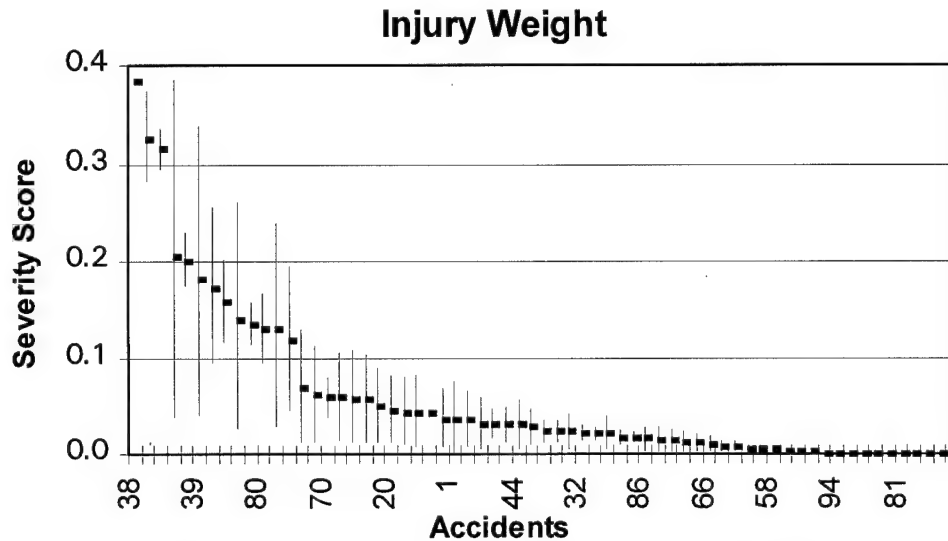
H.2 Accident Sensitivity Over the Full Range of Weights

Injury Weight

Figure H-1   Accident Sensitivity: Injury Weight
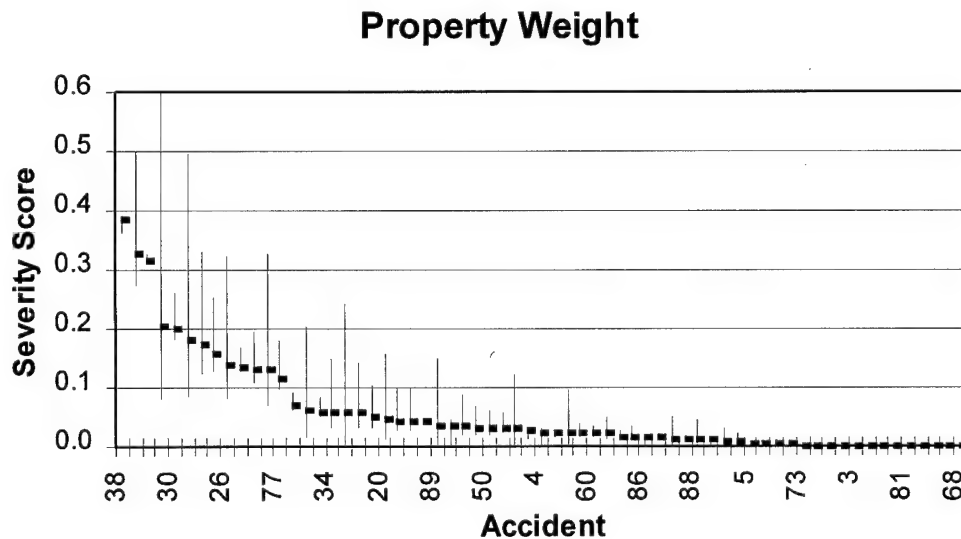
Property Weight

Figure H-2   Accident Sensitivity: Property Damage Weight

Environment Weight
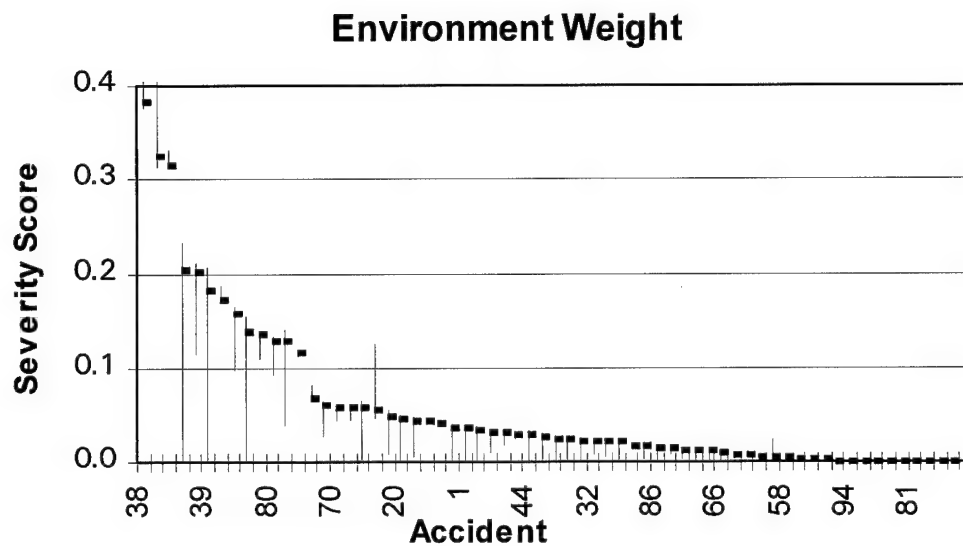
Figure H-3   Accident Sensitivity: Environment Weight
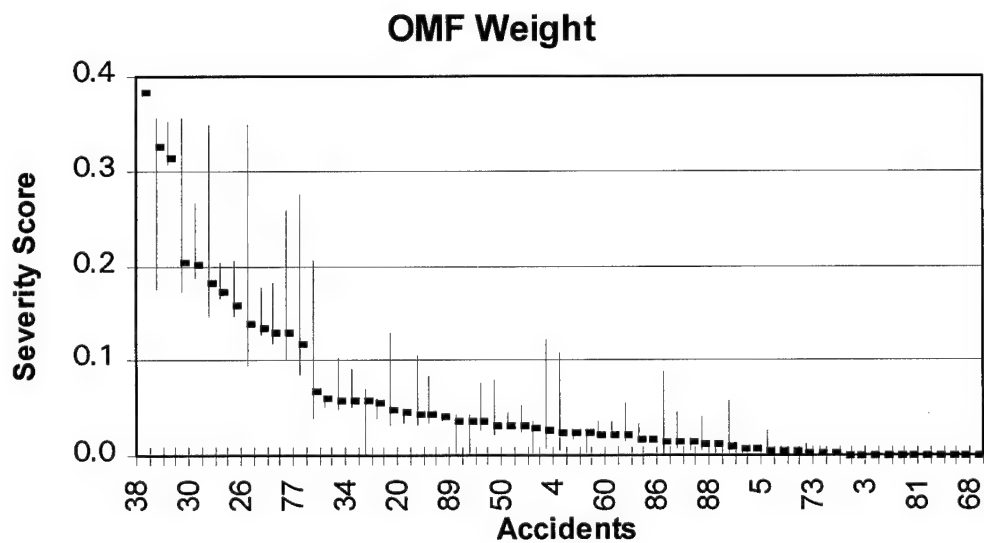
OMF Weight

Figure H-4   Accident Sensitivity: Other Mission Factors Weight

H.3 Hazard Sensitivity Over the Full Range of Weights
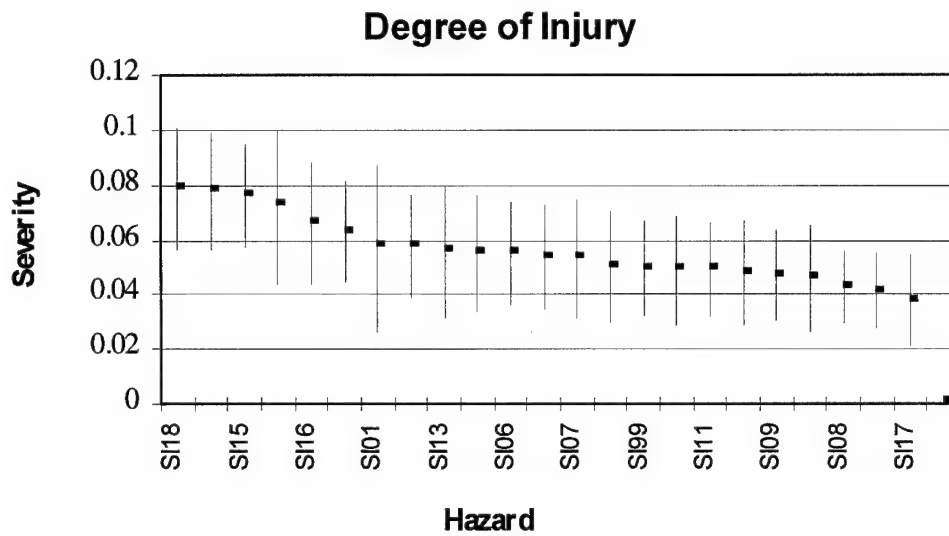
Figure H-5   Hazard Sensitivity: Injury Weight
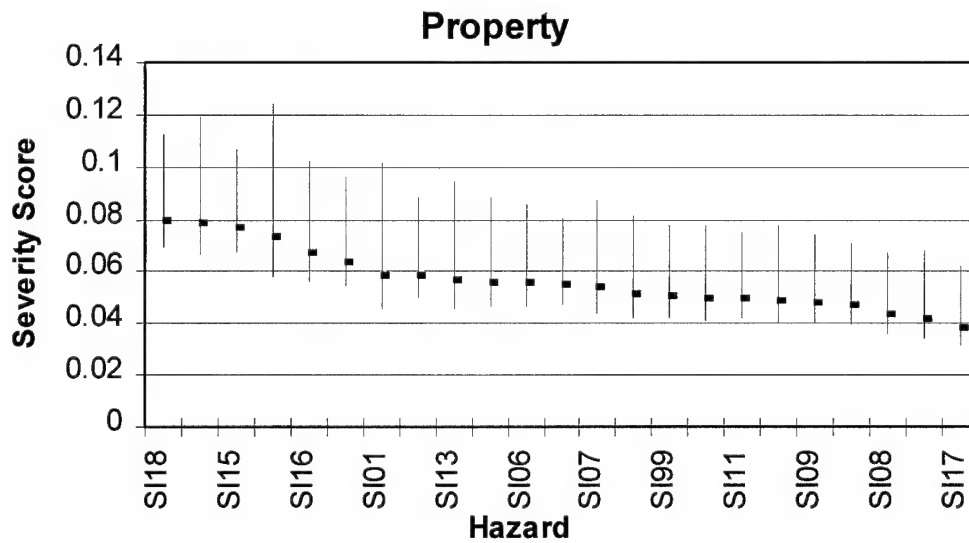
Figure H-6   Hazard Sensitivity: Property Damage Weight
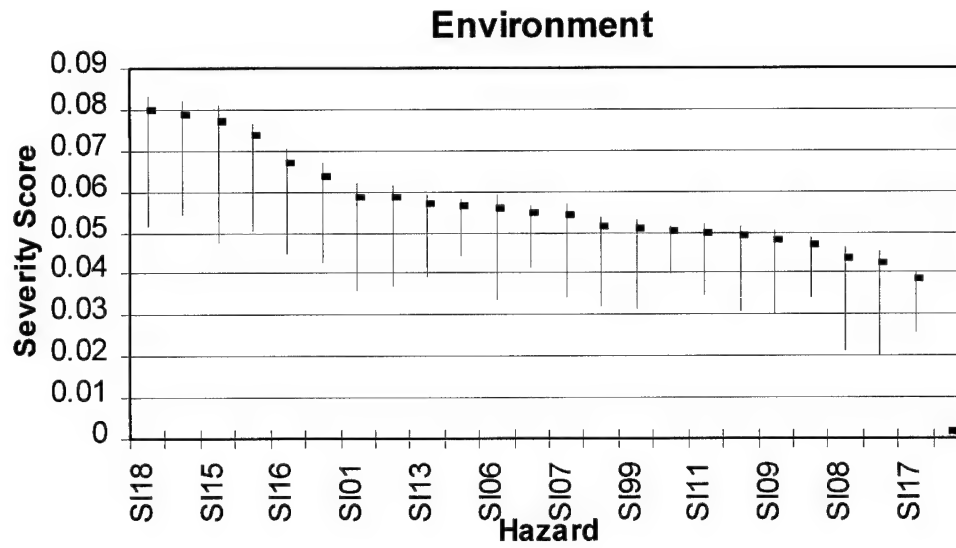
Figure H-7   Hazard Sensitivity: Environment Weight
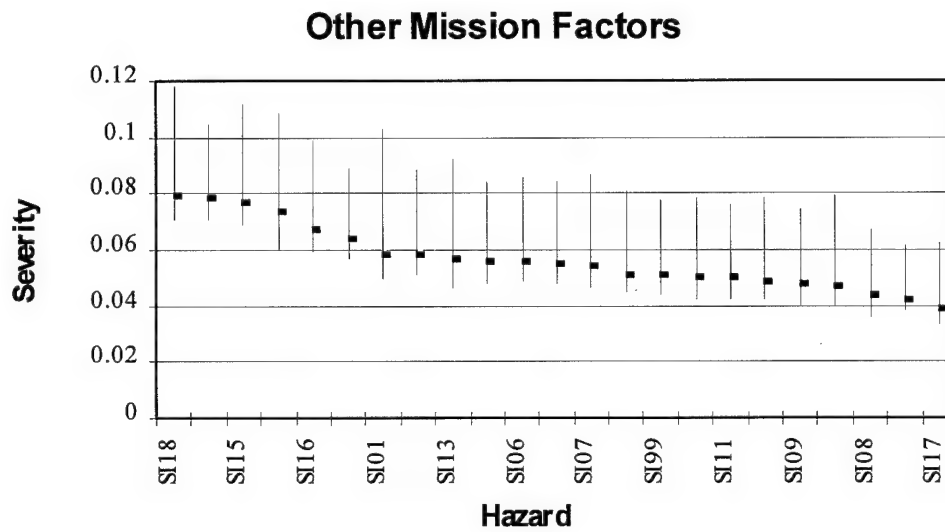
Figure H-8   Hazard Sensitivity: Other Mission Factors Weight

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Vita

Captain Brian K. Sperling was born on 4 October 1966 in Passaic, New Jersey.
He graduated from Roxbury High School in New Jersey in 1985. He entered
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His first assignment was attending the Officer Basic Course and Initial Entry
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September of 1990. He served as an AH-1 platoon leader for a cavalry squadron in
Germany where he was deployed to Operation Desert Storm/Desert Shield. Upon
returning stateside, CPT Sperling attended the Aviation Advanced Course and the AH-64
Apache transition course. He next moved to Fort Campbell, KY and served for 18
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13. ABSTRACT *(Maximum 200 words)*
The United States Army Safety Center (USASC) is challenged with identifying the most severe hazards in Army Aviation. This research utilizes value-focused thinking and multiattribute preference theory concepts to produce a decision analysis model designed to aid decision-makers in their analysis process. The value model is based on the Army's Risk Management doctrinal manual (FM 100-14) and has been tailored specifically for aviation-related accidents and hazards. The model determines and rank orders the severity and risk for 65 categories of accidents and 24 existing hazards. A thorough analysis of the relationship between the probability and severity of accidents and the risk of individual hazards was conducted. Understanding this relationship is instrumental in developing risk reduction controls. Hence, the information in this report was used to make recommendations to the USASC for developing controls to decrease hazard/accident severity and probability. The model provides decision-makers with a decision analysis methodology that is consistent with Army doctrine and the values of the current chain of command at the Army Safety Center. Furthermore the model can be adjusted for different leadership levels or situations. Use of this model can reduce the inherent risks in Army Aviation and therefore protect the military force as a whole.

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